To be respected or not to be: How respect causes cooperation and information sharing within groups

Thesis

presented to the Faculty of Arts

of

the University of Zurich

for the degree of Doctor of Philosophy

by

Dipl.-Psych. Katrin Wodzicki

of Germany

Accepted in the autumn semester 2007 on the
recommendation of Prof. Dr. Klaus Jonas and Prof. Dr. Heinz Gutscher

Acknowledgement

When you are content to be simply yourself and don't compare or compete,
everybody will respect you.
Lao Tzu

During my dissertation project, I have been accompanied and supported by many people. It is a pleasant aspect that I have now the opportunity to express my gratitude for all of them as well as my respect.

First of all, I thank Professor Klaus Jonas who encouraged me to go ahead with my thesis and supported me with many helpful comments on further drafts of this thesis. I also thank Professor Heinz Gutscher who supported this thesis from the beginning till the end.

In addition, the present work had not been possible without my involvement in the project "Individual und situational determinants of reciprocal behavior in knowledge and information sharing in groups" (Project no. 56232101) which was granted by the Research Fund of the University of Zurich and lead by Dr. Karin S. Moser. Both experimental paradigms used for my studies were developed in the course of this project. Karin, I learned many things from working with you.

Primarily, I like to gratefully acknowledge the support of one very special person. She helped me immensely by giving me encouragement and friendship. Carmen, I thank you for always being there for me, for the several discussions mainly in your kitchen, and for your helpful suggestions to every part of this thesis. Thank you doesn't seem sufficient but it is said with appreciation and respect.

There are beyond many people who made my work easier with words of encouragement and with inspiring discussions in different stages of my dissertation project: Melanie Braun, Martin Hanselmann, Anne Jansen, Bettina Ryf, Anna Schmid, Urte Scholz, Manuela Thomae. Thank you!

Furthermore, I had the pleasure to supervise and work with some students who participated in the mentioned project and have been beneficial for the presented work in this thesis. Regula von Büren, Michèle Nägli, Isabelle Ehlers, Annina Eggenschwiler, and Guido Hüsser invested many hours as experimenter and for acquisition of participants. Thanks therefore!

Besides, I thank Professor Friedrich W. Hesse und Dr. Ulrike Cress who gave me the possibility to finish my dissertation while starting a new job. I think the

Knowledge Media Research Center offers me a great environment to follow and advance my research activities.

I finish with my family which is the most basic source of my life energy. I have great parents, unique in many ways, and the stereotype of perfect parents in many others. Their support has been unconditional all these years; they have cherished with me every great moment and supported me whenever I needed it. Thank you so much! Last but not least, I would like to give my special thanks to Jan whose support enabled me to complete this work.

Katrin Wodzicki

Abstract

The aim of my thesis was to investigate whether competence-based respect and liking-based respect enhance group-serving behaviour. Furthermore, mediation processes that may explain the effects of both forms of respect on group-serving behaviour were examined.

The two studies presented in Chapter 3 operationalised both forms of respect within a scenario description. The hypothesis that both forms of respect enhance group-serving behaviour was confirmed. In addition, the second study showed that the proposed mediators play a role in explaining this effect: Participants who felt respected identified stronger with the group and perceived their contributions and the collective goals more important and, in turn, showed stronger group-serving behaviour.

The two studies presented in Chapter 4 operationalised both forms of respect within a computer-based paradigm. Study 1 was not successful in manipulating the considered forms of respect. Although the manipulation of both forms of respect was successful in Study 2, neither form enhanced group-serving behaviour. Thus, the results did not confirm the main hypotheses.

Taken together the results reveal that competence-based respect and liking-based respect enhance group-serving behaviour. The first two studies strongly support the main hypotheses of my thesis, although this result could not be confirmed in the studies of Chapter 4. Three explanations for the different results and important questions for future research are discussed.

Zusammenfassung

Die Doktorarbeit untersuchte, inwiefern kompetenz-basierte und sympathie-basierte Anerkennung gruppendienliches Verhalten fördern. Zusätzlich wurden vermittelnde Prozesse betrachtet, die den fördernden Einfluss von beiden Formen der Anerkennung erklären können.

In Kapitel 3 wurden die zwei Formen der Anerkennung innerhalb von zwei Szenariostudien operationalisiert. Die Hypothese, dass beide Formen gruppendienliches Verhalten fördern, konnte bestätigt werden. Darüber hinaus bestätigte die zweite Studie die angenommenen Prozesse: Teilnehmer, die sich respektiert fühlten, identifizierten sich stärker mit der Gruppe und nahmen ihre Beiträge sowie kollektive Ziele als wichtiger wahr, was wiederum zu mehr gruppendienlichem Verhalten führte.

In Kapitel 4 wurden die zwei Formen der Anerkennung innerhalb von zwei computer-basierten Studien operationalisiert. In Studie 1 war die Manipulation der zwei Formen nicht erfolgreich. Obwohl die Manipulation der zwei Formen in Studie 2 gelang, förderte sie das gruppendienliche Verhalten nicht. Die Haupthypothesen konnten also nicht bestätigt werden.

Insgesamt zeigen die Studien, dass kompetenz-basierte und sympathie-basierte Anerkennung gruppendienliches Verhalten fördern. Die Haupthypothesen der Doktorarbeit wurden in den ersten zwei Studien klar bestätigt, während sie in den Studien von Kapitel 4 keine Unterstützung fanden. Drei Erklärungen für die unterschiedlichen Ergebnisse sowie wichtige Fragen für zukünftige Forschung werden diskutiert.

Table of content

Chapter 1

Introduction

Humans are social beings. We cannot survive without other people surrounding us. Our parents and caregivers have an essential meaning for us, especially in the first years of our lives. Without them we would die of thirst and hunger. We learn much from them about the physical and social world around us. They help us to understand the world and to be a part of it. Later in life, peers, teachers, colleagues, and other people outside our families become important. Throughout our lives, we depend on other people in several ways. For example, we have to cooperate with our colleagues in a team to achieve the project goals or we have to meet the demands of our soccer coach to be nominated for a soccer match.

Thus, it is not surprising that what other people think about us has an important influence on us and on how we see our selves. But it is not enough to know what other people think about us. Additionally, it is important that we are recognised and appreciated by other people. We need *respect* from other people. Respect can be communicated in several ways: by being treated fairly, being included in activities and decisions, getting gratification for our work, and if other people communicate directly that they value us and our behaviours.

Within my thesis, I deal with that last and direct form of respect. I differentiate between two forms of directly communicated respect: *competence-based respect* and *liking-based respect*. Competence-based respect communicates that the person is seen as competent and capable by other people, whereas liking-based respect communicates that the person is seen as likeable and agreeable. The first aim of my thesis is to examine the influence of these two forms of respect on group-serving behaviour. The second objective of my thesis is to explain the process that mediates this influence.

Group-serving behaviour is especially relevant for groups in which the group members have to achieve similar goals. For example, imagine a group of consultants that have to deal with comparable customer inquiries. They have similar experiences and are confronted with comparable problems. In order to work together efficiently, the consultants should *cooperate* and *share information*. Thereby, they can avoid recurring errors and can improve customer satisfaction. In recent years, sharing of information and knowledge has become essential for work organisations. As pointed out by several

authors (e.g., Probst, Raub, & Romhardt, 2006), we live in a knowledge-based society. Thus, it is of great importance to the functioning of every organisation that it handles its knowledge effectively. One aspect of functioning is the cooperative sharing of knowledge and information among members of an organisation. Through sharing, errors can be reduced and processes can be improved, as pointed out in the example above. However, such sharing is hard to monitor and, therefore, it is important to intrinsically motivate the members of the organisation to share. It is necessary that the members share their knowledge voluntarily (e.g., talking with colleagues about handling of difficult customers during coffee break or assisting new colleagues in answering questions). In this regard, I think and will outline that competence-based respect and liking-based respect from other people play a key role.

In this introduction, I will first point out the special meaning that other people and especially members of the same group have for us by describing the evolutionary perspective on groups, the connection between self-definition and group membership, and the functions[1] of identifying with groups (*1.1 The importance of groups*). Afterwards, I will introduce theories and previous research on different forms of respect (*1.2 Respect in groups*). Thereby, I will stress that earlier research has mainly focused on so-called treatment-based respect whereas few studies have investigated liking-based respect and competence-based respect. Subsequently, I will describe theory and research concerning information sharing and cooperation (*1.3 Information sharing within groups*). The collective information sampling model inspired a great body of research on information sharing. Beside this, another approach describes information sharing as an information sharing dilemma and is geared to the social dilemma approach. Furthermore, information sharing can be seen as cooperative behaviour. Thus, I will outline theories of cooperation within groups that are also relevant for the hypotheses of my thesis.

Finally, I will state my definition of competence-based respect and liking-based respect followed by my main hypotheses (*1.4 Respect and information sharing within groups: Hypotheses of the current research*). In addition, I will give my definition of information sharing, and a short overview of the studies that I conducted for my thesis.

[1] Motive and function are used interchangeable throughout this thesis.

1.1 The importance of groups

Groups are an essential part of our daily lives. We belong to a range of *social groups* like gender or ethnic groups. In addition, we are part of societal groups like professions and sport teams. Groups fulfil different functions and their members are in contact with each other to different degrees. Their size and duration vary enormously. For example, a volleyball team is small and their members interact intensively to achieve a common goal. In contrast, gender is a large-scale, enduring social category. The aim of the present section is to point out the importance of groups for every human being and its causes. Thereby, it should become clear why group membership profoundly influences our perception of ourselves and of other people, our thinking, our attitudes and values, and our behaviour.

1.1.1 Evolutionary perspective on groups

Groups had already been important during the evolutionary development of human kind. In our evolutionary past, groups were fundamental for survival: As part of a group, it was easier to ensure nourishment, to defend against enemies, to move successful across landscape and to share resources (Caporael, 2001). As a result, over time humans have adapted to group living: Their perceptual, affective and cognitive processes support the development and the maintenance of membership in groups (Caporael, 2001). These processes have been stressed by several theoretical considerations that I will outline in more detail in the following.

1.1.2 The self and the group: The functions of identification

Parents, close friends, and other peers play a key role in the ontological development of individuals. Especially from birth until adulthood, we depend on our parents to survive and grow up. Through social interactions with other people, we experience as well as influence how others see us, and that shapes our self-concept and our behaviour. Last but not least, we are constantly members of different social groups, even if the pattern of group membership changes during the course of life. Thus, the self is an “interpersonal being” (Baumeister, 1998). In the following, I will describe how our membership in social groups is important for our identity.

The self-structure consists of two elements: personal attributes and social identities (Reid & Deaux, 1996)[2]. Personal attributes are personality traits and behaviours that describe the individual, whereas social identities refer to social group membership. According to Reid and Deaux (1996), attributes provide the content and meaning of social categories. Thus, personal attributes and social identities are not independent. According to this consideration, our social group memberships are essential parts of our selves.

Social identity theory (SIT; Tajfel & Turner, 1979, 1986) and *self categorization theory* (SCT; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) are crucial theories in describing the underlying psychological processes of group membership in intergroup relations. The central concept is *social identity*. Social identity has a cognitive aspect (the knowledge of group membership), but also includes "the valued and emotional significance" (Tajfel, 1978; p. 63) of group membership. According to SIT, the process of social identification with a group is motivated by the goal to achieve or maintain positive self-esteem because of the association with a group perceived as positive, and this is achieved primarily through intergroup comparison. SCT specifies the antecedents and consequences of personal identity and social identity. Personal identity results from interpersonal or intragroup differentiation, whereas social identity results from ingroup-outgroup differentiation (Simon & Trötschel, in press). SCT stresses the personal as well as the situational variables that cause differentiation and, in turn, identity salience. Furthermore, personal identity guides individual behaviour, whereas social identity guides group behaviour.

In addition to self-esteem proposed by SIT, different authors have suggested further motives for identification with groups, e.g., uncertainty reduction (Hogg & Abrams, 1993) or the need for optimal distinctiveness (Brewer, 1991). In more recent years, different research groups have begun to examine multiple motives systematically (Aharpour & Brown, 2002; Deaux, Reid, Mizrahi, & Cotting, 1999; Forsyth, Elliot, & Welsh, 1991; Johnson, Crawford, Sherman, Rutchick, Hamilton, Ferreira, & Petrocelli, 2006).

For example, Deaux et al. (1999) proposed seven functions of social identification: self-insight and understanding, downward social comparison, collective self-esteem, intergroup comparison and competition, ingroup cooperation and cohesion,

[2] See Reid and Deaux (1996) for other terms used in the literature.

social interaction, and romantic involvement. The function ‘self-insight and understanding’ characterises the fact that some groups help people to understand themselves better and to increase their ability to get along with other people. In similar ways, the function ‘downward social comparison’ fulfils an individual need: Comparison within social groups leads to the recognition that one is better off than other group members. Both functions stress the group or other group members as reference points. The function ‘collective self-esteem’ describes the positive feelings associated with some social group memberships, whereas the function ‘intergroup comparison and competition’ is concerned with the intergroup relations. Both functions are classical themes of the SIT. In contrast, the function ‘ingroup cooperation and competition’ focuses on the ingroup and characterises the fact that group members stick together and cooperate with each other. The last two functions call attention to the dyadic interactions within groups: The function ‘social interaction’ describes the social involvement within groups and the function ‘romantic involvement’ points out the possibility that other group members are potential partners for a romantic relationship.

Even if all above mentioned research groups stressed somewhat different fundamental functions of social identification, the proposed motives correspond to a great degree. All these more recent conceptualisations of functions of social identification reveal that group membership fulfils a great scope of individual motives. To my view, this result points out the great importance of group membership for the individual.

Social identity theory stresses the importance of intergroup processes. However, the different motives make clear that groups are not only important on the *intergroup level*, but also on the *intragroup level* and on the *individual level*. On all levels, an individual will strive for favourable information about the self. Self-enhancement is a stronger motive than the self-consistency or appraisal (Baumeister, 1998; Sedikides, 1993). People want to experience that they are capable and likeable.

1.1.3 Summary

The chapter stresses how important groups are for the individual. According to SIT, group membership defines in part how we see ourselves; it is an element of our self-concept. In addition, research on function of identification revealed that we can fulfil a great scope of individual motives through our membership in groups.

1.2 Respect within groups

Information about how other people think about us is important for us. If other people appreciate us, we feel respected. This feeling has an important function for our self-esteem and motivation. But we do not need to be respected by everybody. It matters who respects or disrespects us. For example, people with whom we share a common group membership are especially significant (Branscombe, Spears, Ellemers, & Doosje, 2002; Ellemers, Doosje, & Spears, 2004). In the first section, the importance of groups was already stressed. All people need to belong and need to feel accepted (Baumeister & Leary, 1995), and respect from fellow group members communicates belonging and acceptance. The social psychological literature differentiates several forms of respect. In the following section, I introduce the different forms of respect and existing research about them.

1.2.1 Treatment-based respect

Most research on respect is concerned with the so-called *treatment-based respect*. Treatment-based respect is communicated through the way someone is treated by the group or other group members or by a group authority. Based on procedural justice research (Lind & Tyler, 1988), it is argued that fair treatment indicates the status of a person within the group and its acceptance by fellow group members and, thus, causes the person to feel respected. For example, imagine Stefan who works hard on a project. The project leader observes Stefan's work and regularly gives him carefully prepared feedback. Because of this fair treatment, Stefan feels respected by his project leader. In contrast, imagine Susan who has put intensive engagement in the preparation of a presentation. However, her colleagues listen to her presentation rather unfocussed and, afterwards, they question her engagement in the preparation. She experiences that as unfair treatment and doubts that they respect her.

Early research on this topic was concerned with the treatment by authorities and its effects on the person's attitudes and behaviour (e.g., Tyler, Degoey, & Smith, 1996). Smith and Tyler (1997) extended the consideration on treatment by fellow group members. Within these studies, a wide array of different operationalisations of treatment-based respect was applied. The following paragraph will give an overview

about the different operationalisations of treatment-based respect from fellow group members.

Smith and Tyler (1997) used a respect scale to operationalise the respect that the participants perceived to get from members of a group that is significant for them (e.g., “I believe that other [selected group] react well to me, to what I say and do.” or “Currently, most [selected group] respect me.”). Likewise, Tyler and Blader (2001) measured the respect that the participants perceived to get from their colleagues in organisational context.

De Cremer (2002) manipulated treatment-based respect through a faked commentary of the other group members before the group task. The commentary included the opinion of the other group members about working together in groups. In the respect condition, the commentary revealed that the other group members accept feedback about group decisions, are willing to consider the viewpoints of other group members, and try to treat other group members in a friendly and kind way. In the disrespect condition, the commentary revealed that the other group members refuse feedback about group decisions, are unwilling to consider the viewpoints of other group members and do not try to treat other group members in a friendly and kind way by any means.

Furthermore, De Cremer (2003) used a respect scale to manipulated treatment-based respect. The participants filled out this scale at the beginning of the study. Subsequently, they received a faked feedback about the mean scores of the other group members: A high mean score indicated that the group members “[…] could be considered as people who would give respect to others” (De Cremer, 2003, p. 372).

De Cremer and Tyler (2005) used four different forms of manipulations: In a first manipulation, their participants should recall a situation in which they felt respected versus disrespected. Furthermore, they manipulated respect with the help of a faked commentary of the other group members on a decision made by the participants. In an additional study, they used the respect scale manipulation of De Cremer (2003). Finally, they asked their participants to read scenarios that described situations in which the participants were respected or disrespected by members of the same workforce.

Simon and Stürmer (2003, 2005) also manipulated respect with the help of commentaries of the fellow group members: Therein, fellow group members said how they would proceed to evaluate the suggestions of the participant. In the respect condition, they thought about the suggestions carefully. In the disrespect condition, they

were uninterested in the suggestions of the participants. Table 1-1 gives a summary of the operationalisations used in previous studies about treatment-based respect.

Table 1-1

Operationalisations of treatment-based respect used in previous studies

	Operationalisations
Smith & Tyler (1997)	Respect scale that measured how much respect the participants perceived to get from members of a personally significant group
Tyler & Blader (2001)	Respect scale that measured how much respect the participants perceived to get from their colleagues (like Smith & Tyler, 1997)
De Cremer (2002)	Faked commentaries including the opinion of the other group members about working together in groups
De Cremer (2003)	Faked feedback about the mean scores of the other group members on a respect scale
De Cremer & Tyler (2005), Study 1 & 4	Recall of a situation in which the participants felt respected versus disrespected
De Cremer & Tyler (2005), Study 2	Faked commentaries of the other group members on a decision made by the participant
De Cremer & Tyler (2005), Study 3	Faked feedback about the mean scores of the other group members on a respect scale (like De Cremer, 2003)
De Cremer & Tyler (2005), Study 5 & 6	Scenarios that described situations in which the participants were respected or disrespected by members of the same workforce
Simon & Stürmer (2003, 2005)	Commentaries from fellow group members on their procedural manner in judging the suggestions of the participant

Overall, the operationalisations display different understandings of the term respect. The studies that used measurements of perceived respect (Smith & Tyler, 1997; Tyler & Blader, 2001) as well as faked feedbacks about mean scores on a respect scale (De Cremer, 2003; De Cremer & Tyler, 2005, Study 3) cannot be exclusively assigned to the research on treatment-based respect. They work with a broader underlying definition of respect. In addition, the faked feedback about being respected or disrespected (De Cremer & Tyler, 2005, Study 5 & 6) lacks a clear definition.

Likewise, De Cremer and Tyler (2005) leave open what they mean by feeling respected or rather disrespected when asking their participants to recall a situation in which they felt respected versus disrespected. The other studies (De Cremer, 2002; De Cremer & Tyler, 2005, Study 2; Simon & Stürmer, 2003, 2005) make explicit that respect is concerned with fair treatment.

The results of the experimental studies showed that treatment-based respect has significant influence on people's attitudes and behaviour: Participants who had received treatment-based respect contributed more resources to a public good (De Cremer, 2002, 2003; De Cremer & Tyler, 2005), had a stronger self-esteem (De Cremer & Tyler, 2005; Smith et al., 1997), experienced more positive emotions (De Cremer & Tyler, 2005), showed more group-serving or extra-role behaviour (De Cremer & Tyler, 2005), identified stronger with the group (Simon & Stürmer, 2002, 2005; Tyler & Blader, 2001) and had lower intention to leave the group (De Cremer & Tyler, 2005).

To summarize, treatment-based respect has positive effects on the individual well-being as well as on the relationship between individual and group.

1.2.2 Competence-based respect and liking-based respect

In recent years, two additional forms of respect found some consideration: *liking-based respect* and *competence-based respect* (Spears, Ellemers, & Doosje, 2005). Taking into account that likeability and competence are the central focus in perceiving and judging other persons (for a review: Wojciszke, 2005), this development is not surprising. Liking-based respect communicates that fellow group members like the person, whereas competence-based respect communicates that fellow group members appreciate the person's competence or ability. Liking-based respect is a relational form of respect because it says something about the relationship between the person and the other group members. In this aspect it is similar to treatment-based respect. But both forms of respect differ as well: You can treat a person respectfully, even if you do not like him or her. In contrast, competence-based respect says something about the subjective evaluation of the person by other group members and, if at all, something about the professional relationship between the person and the other group members.

Initially, Spears et al. (2005) used the terms liking-based respect and competence-based respect and discussed them in relation to treatment-based respect. I strongly agree with this differentiation of Spears et al. (2005). In addition, some

previous studies dealt with the term respect, but did not (only) consider treatment-based respect (Branscombe, Spears, Ellemers, & Doosje, 2002; Ellemers, Doosje, & Spears, 2004; Simon & Stürmer, 2003, 2005). Continuing the work of Spears et al. (2005), who implicitly included some of these studies, I will describe the *manipulation* of the above mentioned studies and explicitly discuss their labelling as either liking-based respect or competence-based respect.

Branscombe et al. (2002) and Ellemers et al. (2004, Study 3) used a faked evaluation to manipulate respect: To get to know each other within the group, the participants should write down one favourable and one unfavourable interpersonal behaviour that they had performed recently. Afterwards, they got a faked mean score of the judgements made by the fellow group members. Spears et al. (2005, Study 1) used a similar manipulation for liking-based respect. In addition, Ellemers et al. (2004, Study 1 & 2) used scenarios: The participants read a situation description in which fellow group members responded favourably or unfavourably on their behaviour. In a similar way, Spears et al. (2005, Study 2) applied scenarios to manipulate liking-based respect. Furthermore, Simon and Stürmer (2005) used a faked feedback about the acceptance or rather the rejection of the participant as group member by the other group members. This manipulation resembled other manipulations of liking-based respect, even if it was named ‘acceptance’.

To manipulate competence-based respect, Spears et al. (2005, Pilot study & Study1) applied scenarios in which fellow group members were impressed by the participant’s work or rather found it poor. Additionally, Spears et al. (2005, Study 2) applied faked evaluations of the fellow group members to manipulate competence-based respect. The evaluations referred to statements of the participants about successful and unsuccessful performance they had recently displayed. Moreover, Simon and Stürmer (2003) used faked evaluations that referred to suggestions of the participant on how to improve teaching and education at their university. Because this is a subjective performance evaluation by the other group members, I classify this manipulation as a manipulation of competence-based respect.

As it was the case for treatment-based respect, the manipulations of liking-based respect and competence-based respect were operationalised in different ways. Table 1-2 summarizes the manipulations of these forms of respect.

Table 1-2

Manipulations of liking-based and competence-based respect used in previous studies

	Manipulation of liking-based respect
Branscombe et al. (2002)	Faked evaluation of the participant's statements on favourable and unfavourable interpersonal behaviour by fellow group members
Ellemers et al. (2004), Study 1 & 2	Scenarios that described situations in which fellow group members responded favourably or unfavourably to the participant's behaviour
Ellemers et al. (2004), Study 3	Faked evaluation of the participant's statements on favourable and unfavourable interpersonal behaviour by fellow group members (like Branscombe et al., 2002)
Simon & Stürmer (2005)	Faked feedback about acceptance or rejection of the participant as group member by fellow group members
Spears et al. (2005), Study 1	Scenarios that described situations in which fellow group members appreciated or rather did not like an action of the participant
Spears et al. (2005), Study 2	Faked evaluation of the participant's statements on favourable and unfavourable interpersonal behaviour by fellow group members (like Branscombe et al., 2002)
	Manipulation of competence-based respect
Simon & Stürmer (2003)	Faked evaluation of the participant's suggestions on how to improve teaching and education at their university
Spears et al. (2005), Pilot study & Study 1	Scenarios that described situations in which fellow group members were impressed of the participant's work or rather found it poor
Spears et al. (2005), Study 2	Faked evaluations of the participant's statements on successful and unsuccessful performance by fellow group members

To sum up, the manipulations of liking-based respect are based on interpersonal behaviour of a person that is evaluated favourably or unfavourably by fellow group members. Likewise, the manipulations of competence-based respect are based on evaluations of fellow group members. However, in contrast to liking-based respect these evaluations refer to performances of a person.

Previous studies showed that participants who had received either liking-based respect or competence-based respect showed a stronger membership self-esteem (Ellemers, Doosje, & Spears, 2004; Spears et al., 2005), experienced stronger positive emotions and weaker negative emotions (Ellemers et al., 2004, Spears et al., 2005), and identified stronger with the group (Simon & Stürmer, 2003, 2005; Spears et al., 2005). In addition, the studies showed that participants who had received liking-based respect showed more group-serving behaviour (Branscombe, Spears, Ellemers, & Doosje, 2002). As with treatment-based respect, liking-based respect and competence-based respect have positive effects on the individual well-being as well as on the relationship between the individual and the group.

1.2.3 Summary

The chapter gives an overview about research on respect and, thereby, highlights that the definitions and operationalisations of respect vary. Whereas much research is concerned with treatment-based respect, less research is concerned with liking-based respect and competence-based respect. Both arrays of research showed that respect from fellow group members does not only foster the individual's self-esteem and feelings of inclusion, but also the individual's cooperative behaviour within the group and towards fellow group members, also referred to as group-serving behaviour. Nevertheless, more research is needed, especially on competence-based respect and liking-based respect and their effects on group-serving behaviour.

1.3 Information sharing within groups

Information sharing has been considered in different research projects and has been conceptualised from varying theoretical viewpoints. The following section will give an overview about research on information sharing and possible theoretical considerations on this topic.

1.3.1 Collective information-sampling model

The collective information-sampling model (Stasser, 1992) is a widespread social psychological approach for the investigation of information sharing. A review on the numerous studies can be found in Stasser and Titus (2003) as well as in Wittenbaum, Hollingshead, and Botero (2004). I will only give a short overview about the collective information-sampling paradigm because I will focus on a different understanding of information sharing in my thesis that will be introduced in the next section.

Research using the collective information-sampling paradigm has investigated group discussion that has the goal to make a decision (e.g., Greitemeyer & Schulz-Hardt, 2003). Before the discussion, the information that is necessary to make an accurate decision is distributed among the group members. As a consequence of the distribution of the information, the group members possess shared and unshared information. Experimental studies with the collective information-sampling paradigm have varied the amount of shared and unshared information among the group members and have examined the effect of several information distributions on the quality of decision making. For example, if the distribution of shared and unshared information is arranged so that all group members individually prefer the same but not the best decision alternative, one speaks of a hidden profile. In this case, the best decision alternative can only be found if all information is shared at least during the discussion.

But the results of different studies have shown that unshared information is exchanged less frequently with other group members than shared information and, as a consequence, hidden profiles are not recognised and false decisions are made. Shared and unshared information have different probabilities of being recalled and contributed to by an individual group member. This is formalised in the collective information-sampling model (Stasser & Titus, 1987), and in the extension of the model from Larson,

Foster-Fishman, and Keys (1994). But these models do not account for the whole problem. In addition, shared information is repeated more often than unshared information. Supported by the results of different studies (e.g., Wittenbaum & Bowman, 2004), it is reasoned that the mentioning of unshared information is associated with some social costs because unshared information raises the question of its accuracy and validity. In contrast, shared information can be confirmed by other group members – this is called social validation.

1.3.2 Information-sharing dilemma

A second social psychological approach conceptualises information sharing as a kind of social dilemma. Specifically, this approach describes information sharing as a *probabilistic public goods dilemma* (Connolly, Thorn, & Heminger, 1992; Bonacich & Schneider, 1992). Therefore, Bonacich and Schneider (1992) referred to the decision whether to share information with others or not as "communication dilemma".

The basis for this consideration is the following: People of a group or an organisation have different kinds of information. Some information is common among all, whereas other information is idiosyncratic to one or a few people. The idiosyncratic information could be especially important for other people in the group or organisation. Therefore, it would be of great importance that all people share their idiosyncratic information with each other in the group or organisation.

Provided information can be considered as a public good (e.g., information in a database). This public good can be used by everybody within the group or organisation independent of his or her own provision to the public good. In addition, the public good does not become smaller by making use of it (Cabrera & Cabrera, 2002). From an individual point of view, it seems to be rational to solely benefit from the public good and to refrain from contributing to it. But if all people in the group or organisation decide to contribute nothing to the public good, the public good will not be provided at all. Consequently, from a collective point of view the contribution to the public good is the most rational choice.

But there is an important difference to classical public goods dilemmas: The benefit for participating in information sharing is *probabilistic* and not deterministic (Connolly et al., 1992). That means that an individual benefits only with an uncertain probability. In deterministic social dilemmas, the specific value of any shared item is

always clear. For example, when a person contributes two Euros and receives four Euros he or she knows that he or she benefits from sharing. The benefit and meaning of information can vary to a great degree, if there is any helpful information in the public good at all. For example, it is imaginable that information about a complex problem is very important because receiving this information saves a lot of time, whereas other information about a simpler problem is less important because receiving it saves little time. From the first information, an individual benefits to a higher degree than from the second. But how can this higher benefit be quantified and how can different information be compared with each other? Furthermore, contributing differentially relevant kind of information is also associated with different costs. Consequently, an individual cannot estimate his or her costs and benefits for sharing certain information.

The first authors who empirically investigated information sharing by probabilistic public goods dilemmas were Connolly et al. (1992), and Bonacich and Schneider (1992). Connolly et al. (1992) realised an experimental economic game. Their participants adopted the role of a product manager of a certain country. During the game, they had the possibility to share some information with product managers from other countries. The sharing was realised via database. The authors came to the conclusion that information-sharing dilemmas are comparable to classical public goods dilemmas, but that they are not the same.

In the experimental studies of Bonacich and Schneider (1992), the participants were divided in groups in order to play a game together. The members of each group were only connected to each other via computer terminals. The task was to correctly guess a quotation right. Several subsets of letters of a quotation were distributed among the group members so that an individual group member could not correctly guess the quotation right at the beginning. Thus, some sharing was necessary to correctly guess the quotation right. During each round of the game, participants could pass some of their letters to other participants and guess a quote. To realise the dilemma structure, the participants could gain a group reward that was equally divided among all members of the group and, in addition, the first group member or group members that correctly guessed the quotation right could win a further reward. The focus of these studies was the influence of different communication networks (e.g., the pinwheel network) on sharing among the group members. Thus, the participants could pass their letters only to specific group members.

A series of more recent experimental studies stem from Cress and her colleagues (e.g., Cress, 2005; Cress & Hesse, 2004). They developed an experimental paradigm in which the participants had to calculate salaries as part of a synchronous working team. The computation took place in two phases: First, the participants computed a base salary and, second, the participants computed the total salary which built up on the base salary. In the first phase of base salary computation, participants could contribute the base salaries which were the basis for the calculation of the total salaries in the second phase to a shared database. In the second phase of total salary computation, participants had to calculate a base salary again, if they had not calculated the respective base salary in the first phase, and if the respective base salary had not been contributed to the database by at least one other group member. Thus, the more base salaries were available from the shared database, the more total salaries could be computed in the given time. To realise the dilemma between the individual interest (calculating as many salaries as possible) and the group interest (providing as many salaries to the database as possible), the participants were paid for each base salary that they computed in the first phase and for each total salary that they computed in the second phase. The amount of money earned during the task depended only on the individual speed and the contributions of base salaries by the other group members. Furthermore, if a participant contributed a base salary to the shared database in the first phase, it took some time off his or her base salary calculation. Consequently, it would be rational for the participants to contribute no base salaries to the shared database. During the task, the participants believed that they were part of a real working team. However, the behaviour of the other group members was faked to eliminate group effects.

Cress and colleagues have performed a series of experiments with different independent variables. For example, they showed that participants were influenced by their knowledge about the importance of information: Participants contributed much more important than less important information. Furthermore, they demonstrated that bonus enhanced the quality of database contributions, and that high costs of contributions compared with low costs reduced contributions. In addition, they showed that participants used feedback about the contributions by other group members as reference point for their own contributions; however, a total assimilation did not appear and the contributions were lower than that of the other group members. Beside these independent variables, the effects of prescriptive rules and visual anonymity were investigated.

In addition to the mentioned experimental studies, an empirical field study exists on communication dilemmas in database-mediated collaboration (Kalman, Monge, Fulk, & Heino, 2002). The authors examined a project team of 28 aircraft design engineers. In reference to Klandermans (1984) and Staw (1984; both as cited in Kalman et al., 2002), Kalman et al. (2002) proposed an expectancy model to explain contributions to a shared database: The motivation to contribute is described as a multiplicative function of organisational commitment, organisational instrumentality, connective efficacy, and information self-efficacy (see Figure 1-1). In this model, organisational instrumentality is defined as "the belief that OG [organizational gain] will result if people collectively use the database to share information" (p. 131). Connective efficacy means "a person's belief that other people who can use contributed information will in fact receive it" (p. 131), whereas information self-efficacy is defined as "a person's belief that others would value that person's information if they found it in the database" (p. 132). In their study, they partly found confirmation for their model. The whole multiplicative model explained more than half of the variance in sharing behaviour. However, the reduced multiplicative model including only organisational commitment and connective efficacy was equally predictive. Thus, it seemed that organisational instrumentality and information self-efficacy did not play an important role in the examined context (see Kalman et al. (2002) for more details).

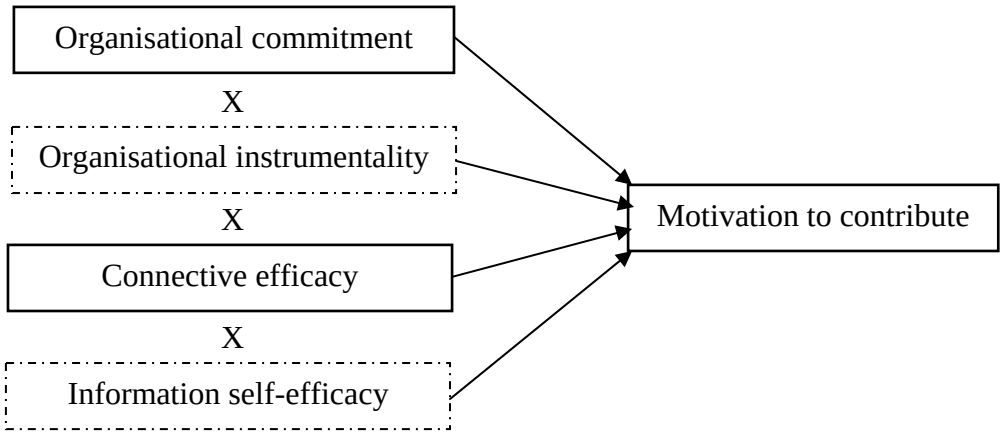


Figure 1-1. The expectancy model of Kalman et al. (2002) to explain contributions to a shared database as a multiplicative function of organisational commitment, organisational instrumentality, connective efficacy, and information self-efficacy

---

Note. The variables surrounded by continuous lines were the most important following the results of Kalman et al. (2002).

In addition, Cabrera and Cabrera (2002) had inferred some possible interventions from the previous research on classical public goods dilemmas that could perhaps promote information sharing as well. They differentiated between three possible areas of intervention: First, restructuring the pay-off function, second, increasing perceived efficacy of individual contributions, third, establishing group identity and promoting personal responsibility. Examples of interventions that intended to restructure the pay-off function are reducing the cost of contributions or increasing the benefit of contributions by means of rewards or selective incentives. Examples of interventions that intended to increase perceived efficacy are increasing information efficacy and connective efficacy through feedback about contributions or through training. Examples of interventions that intended to establish group identity are increasing the commitment or identifiability through encouraging communication and publicising information about individual contributions. However, these interventions are only inferred from a theoretical point of view. Cabrera and Cabrera (2002) did neither discuss possible differences between classical public goods dilemmas and information dilemmas nor support their inferences by empirical studies.

1.3.3 Information sharing as cooperation: Theories of cooperation within groups

Information sharing within groups is one form of cooperation. Information given to other group members can help them to complete or improve their work. However, it could not only enhance individual goal attainment, but also group goal attainment. In this case, information sharing is also a kind of group-serving behaviour. Because of this reasoning, we can apply theories about cooperation within groups to the consideration of information sharing. This section should introduce three of them: The social identity theory, the group engagement model and the collective effort model.

Social identity theory. As mentioned before (see *1.1.2*), social identity theory (Tajfel & Turner, 1979, 1986) is one of the most influential theories on group behaviour. Central is the concept of social identity which describes the cognitive as well as the affective integration of a group membership in the self identity. Individuals are motivated to identify with positively evaluated social groups because this is a possibility to achieve positive self-esteem. The social identification with a group in turn affects individual behaviour. The social identity theory is especially concerned with intergroup

behaviour. But the theory is used to explain intragroup behaviour as well. Several studies demonstrated the positive effects of social identification on social perception as well as on group-serving behaviour (e.g., Ashforth & Mael, 1989; Brown, 2000; Tajfel & Turner, 1986; van Knippenberg, 2000).

Group engagement model. The group engagement model (Tyler & Blader, 2003) is concerned with the influence of respect and pride on the engagement within groups. The model is based on different theoretical considerations, namely the social identity theory, the social exchange theory, and the procedural justice literature. According to the model, feelings of respect are influenced by perceived procedural justice as well as by resources that the individual receives from the group and its members. In addition, the model proposes that group members who feel respected by their fellow group members identify more strongly with the group. In turn, the stronger identification with the group enhances group-serving behaviour. This assumption is called the social identity mediation hypothesis (see also Figure 1-2).

The social identity mediation hypothesis received empirical support from studies designed to test it. The studies indeed showed that identification with the group is the mediator of the effect of respect on group-serving behaviour (De Cremer, 2003, 2002; Simon & Stürmer, 2005, 2003). Until now, support for this hypothesis only stemed from studies investigating treatment-based respect. However, one study (Spears et al., 2005) showed that liking-based respect as well as competence-based respect enhances the commitment to the group. Because the positive effect of identification with the group on group-serving behaviour received strong support in empirical research, the social identity mediation hypothesis can presumably be applied to liking-based respect and competence-based respect as well.

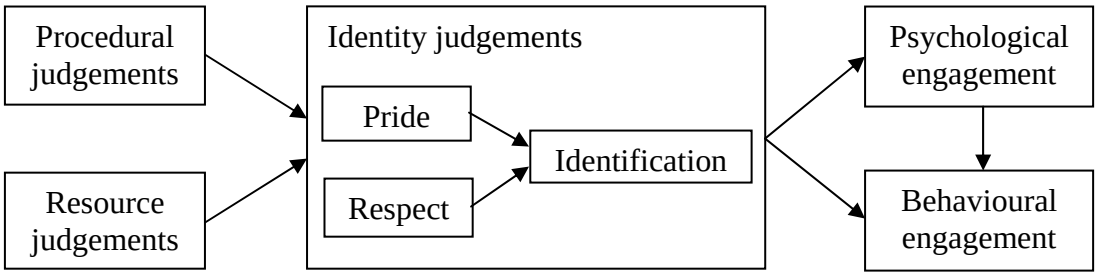


Figure 1-2. The group engagement model (Tyler & Blader, 2003; simplified version of the figure displayed on page 354)

Collective effort model. In the collective effort model, Karau and Williams (2000) tried to integrate the existing research on social loafing and, thereby, they developed "a model of individual motivation in groups" (p. 114). The collective effort model assigns the expectancy-value structure on working in groups (see also Figure 1-3). It assumes that the individual motivation for investment in collective performance is determined by different group work specific expectancies and values: First, it is important that a group member believes that his or her individual effort will result in a good individual performance. Second, it is important that a group member believes that his or her individual performance is valuable for the group performance. Third, it is important that a group member believes that a good group performance will result in valued group outcomes and, in turn, that valued group outcomes will result in valued individual outcomes. In the model, Karau and Williams also integrated "recent research and theory on social identity and self-evaluation processes in groups" (p. 118): They stressed the importance of groups for self-evaluation and for satisfaction of needs, i.e., the need to belong or the need for social interaction.

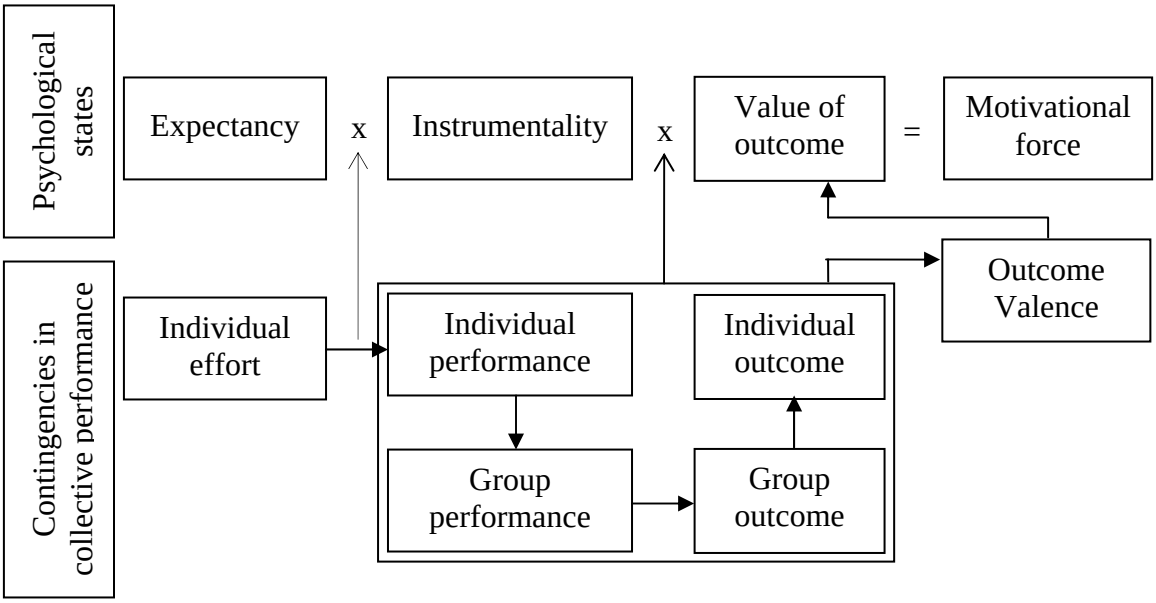


Figure 1-3. The collective effort model (Karau und Williams, 1993; simplified version of the figure displayed in Karau & Williams, 2001, p.120)

1.3.4 Summary

The preceding section exemplified that information sharing can be seen from different theoretical viewpoints depending on the kind of information sharing considered. Most research has focussed on information sharing within group discussions. However, information sharing can also be considered as a public goods dilemma. That means that individual interests (e.g., evading to share information in order to work fast) conflict with group interests (e.g., sharing information in order to improve the group performance). In this case, information sharing is a cooperative or rather a group-serving behaviour. Thus, theories on cooperation within groups have to be taken into account. These theories show that there are various important factors for the engagement of an individual group member within a group. All presented theories point out that the identification with the group is central. The group engagement model postulated that group members will identify stronger with a group, if they are treated respectfully by fellow group members, and if they get the resources they think to deserve and, in turn, they will engage in group-serving behaviour. However, identification is only one important antecedent of group-serving behaviour. Especially the collective effort model emphasises that specific beliefs are additionally important. Group members will only engage in group-serving behaviour like information sharing, if they believe that their engagement is important for the group performance and results in valued outcomes for themselves and for the group.

1.4 How respect causes information sharing within groups: The aims of my thesis

1.4.1 Definition of respect

Within the thesis, I focus on competence-based respect and liking-based respect. Until now, only a few studies have considered these two forms of respect. Thus, my studies contribute to the enhancement of our knowledge about their effects on attitudes and behaviour, and the processes behind them. Because former studies used different manipulation of these two forms of respect and no consistent definition of them exists, I will outline my understanding of competence-based respect and liking-based respect in the following.

In general, I focus on respect as a positive evaluation of a person that is verbally communicated by fellow group members. Depending on the kind of evaluation, I differentiate between two forms of respect:

Competence-based respect is a positive evaluation of the person's competence that is verbally communicated by fellow group members.

Liking-based respect is a positive evaluation of the person's likeability that is verbally communicated by fellow group members.

Applying these definitions, I concentrate on respect among persons with equal status that share the same group membership, and its consequences for intragroup processes. Even if respect from group members with higher status (e.g., the supervisor of a group) may also be important for a person, I think that respect from group members with higher status also has further implications for the respected or disrespected person (e.g., power difference concerning decision about gratification and so on). Consequently, respect from group members with higher status is qualitatively different from group members with equal status. Furthermore, these forms of respect base on subjective evaluations of the fellow group members: The person may or may not be competent in objective terms or the person may or may not be likeable for other people outside his or her group. In addition, the evaluation does not include any comparison with other group members on the relevant dimensions. Finally, the respect given by

positive evaluation may or may not result in feelings of respect in the evaluated person. The perception of the positive evaluation as respect marks an important factor of my thesis and will be labelled as *perceived respect* throughout the thesis.

1.4.2 Definition of information sharing

In my thesis, I'm interested in *group-serving behaviour* within groups in general as well as *information sharing* in specific. That means that information sharing is considered as one form of group-serving behaviour within groups. The situation that I consider is a kind of a social dilemma and can be described as follows:

> A person works on an individual task, but within a work group. The task completion can benefit from sharing information with other work group members. But the sharing needs resources (e.g., time) which eventually lack for the individual task completion. Thus, the situation is a dilemma between individual and group goals. The individual group member's goal is to complete his or her task as well and efficiently as possible. From this perspective, the individual group member should only take any information given by the other group members, but should not give anything back. The group goal is to complete all individual tasks as well and efficiently as possible. From this perspective, each individual should give any possible information to the other group members. The individual group member will only benefit from information sharing, if each group member shares his or her information with the other group members. But whether this will happen remains uncertain to the individual group member.

The described situation constitutes a probabilistic public goods dilemma (Bonacich & Schneider, 1992; Cabrera & Cabrera, 2002; Connolly, Thorn, & Heminger, 1992). The public good is the information provided to all group members (e.g., via database). Probabilistic means that a group member benefits from the provided information only with an unknown probability because the usefulness of information can differ from very helpful to not helpful at all. The probability for benefiting is highest, when every group member gives as much information as possible. Then, the

sharing of information is time saving as well as error reducing and, thus, can facilitate the work of every individual group member.

Within my thesis, I used two different experimental paradigms to realise the described dilemma situation. On the one hand, I realised a *scenario* that described a work group situation at the university (see Chapter 3 for more details). Here, *group-serving behaviour in general* was considered as dependent variable. On the other hand, I realised a *computer-based task paradigm* where the role of a customer consultant was assigned to the participants and a database exchange with other customer consultants was simulated (see Chapter 4). Here, *information sharing* was explicitly considered as dependent variable. The therefore developed computer-based paradigm as well as its pre-test will be described in detail in Chapter 2.

1.4.3 Main hypotheses

According to the group engagement model (Tyler & Blader, 2003), respect enhances group-serving behaviour. Different studies on treatment-based respect supported the model. I expected that the same holds true for competence-based respect and liking-based respect. This hypothesis is supported by different studies showing that competence-based respect and liking-based respect also strengthen group-serving behaviour (e.g., Branscombe et al., 2002).

The group engagement model does not only make assumptions about the effect of respect on group-serving behaviour. In addition, it makes assumptions about the mediating processes: The social identity mediation hypothesis predicts that respect enhances the *identification with the group* and, in turn, identification strengthens group-serving behaviour. I expected that this also holds true for competence-based respect and liking-based respect. Some studies on these forms of respect showed that both enhance identification with the group (e.g., Spears et al., 2005). However, the mediating process had not been shown to date. Furthermore, I expected that respect changes the relationship to the group in two further aspects: I expected that respect additionally enhances the *importance of collective goals and of own contributions to the group*. Following the collective effort model (Karau & Williams, 2000), both perceptions are important for the engagement within groups. Consequently, I expected that they strengthen group-serving behaviour in turn.

To sum up, the aim of my thesis was to test the following hypotheses:

Hypothesis 1: Competence-based respect enhances group-serving behaviour.
Hypothesis 1a: The influence of competence-based respect on group-serving behaviour is mediated by identification with the group, by importance of collective goals as well as by importance of own contributions.

Hypothesis 2: Liking-based respect enhances group-serving behaviour.
Hypothesis 2a: The influence of liking-based respect on group-serving behaviour is mediated by identification with the group, by importance of collective goals as well as by importance of own contributions.

To stress once again, the manipulation of competence-based respect and of liking-based respect has to result in feelings of respect. Thus, I additionally considered *perceived respect*. Figure 1-4 illustrates all proposed hypotheses.

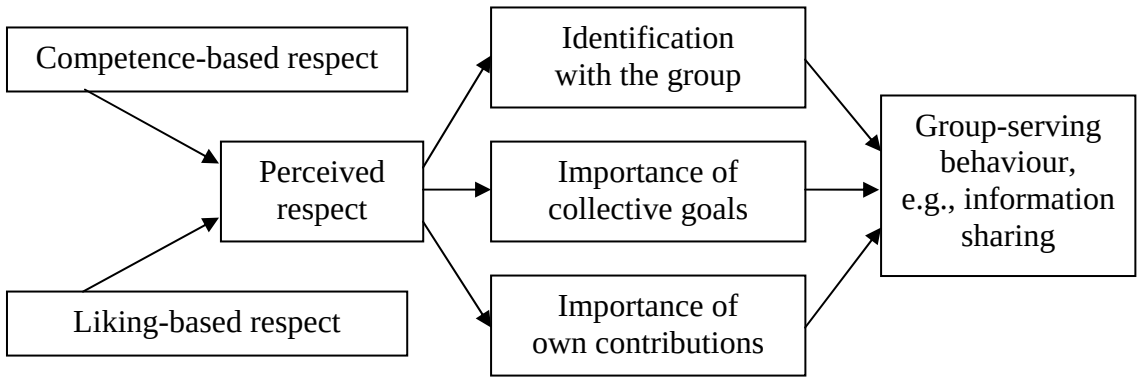


Figure 1-4. Graphical representation of the main hypotheses

1.4.4 Overview of the following chapters

Chapter 2 presents the pre-test of the mentioned computer-based task paradigm. The aim of the pre-test was to examine how student participants understand the task, how they behave, and how they react to database output given during the task completion. It was planned to revise the task paradigm if necessary in order to improve its comprehensibility.

To test the hypotheses of the thesis, I performed two series of experiments that are independently presented in Chapter 3 and Chapter 4. Chapter 3 presents two scenario studies. The scenario described a work group setting at the university: The participants were asked to imagine that they were part of a 3-person work group. Together, they had to write a term paper. The term paper had one topic. However, it could be divided in three more or less independent parts. The individual work group member could write his or her part alone, but the exchange with the other two group members could enhance the writing because the parts had a common topic. The goal of the situation description was to realise the above described dilemma situation and to implement the manipulation of respect. After reading the scenario, the participants had to answer a series of questions concerning their behaviour within the work group. These questions should measure the group-serving behaviour intentions. In the first study, the effect of competence-based respect on group-serving behaviour intentions was examined. In the second study, the effects of competence-based respect as well as of liking-based respect were examined. Furthermore, it was considered whether identification with the group as well as importance of collective goals and of own contributions mediated the effect of both forms of respect on group-serving behaviour. In addition, a moderation was postulated: I expected that the effects of both forms of respect will be especially strong, if the work context is characterised by low to moderate reciprocity of exchange relations. The manipulation of respect was realised within the situation description: Whether the other group members liked the participants for a likeable act (*liking-based respect condition*) or rather disregarded the likeable act (*no liking-based respect condition*), or the other group members recognised the participants for a competent act (*competence-based respect condition*) or rather disregarded the competent act (*no competence-based respect condition*).

In Chapter 4, two studies with the computer-based paradigm are presented. In both studies, the effects of competence-based respect and liking-based respect on group-

serving behaviour were considered. The participants were asked to imagine that they were consultants of a hotel association, that they dealt with customer inquiries, and that they could share information with other consultants of the hotel association via a shared database. The information shared with other consultants during the task completion was the dependent measure. In the first study, the manipulation of respect was realised via a feedback of the team leader. The feedback included information about how the other team members perceived the participant: Whether the participant was liked by the other group members and perceived as great colleague (*liking-based respect condition*) or the participant was perceived as competent and was recognised as great consultant (*competence-based respect condition*) or no information was given (*control condition*). In the second study, the manipulation of respect was realised via a situation description. The situation described an advanced training of all consultants of the hotel association. During a group discussion of the enhancement of the consulting service, the participants were asked to imagine that they had made lots of contributions. In the *competence-based respect condition*, the participants were recognised for the competent contributions during the group discussion, whereas they were perceived as less competent in the *no competence-based respect condition*. In the *liking-based respect condition*, the participants were recognised for their likeable behaviour during the group discussion, whereas they were perceived as less likeable in the *no liking-based respect condition*.

In Chapter 5, I will discuss the results of both series of studies in conjunction with each other and draw conclusions about the confirmation of the postulated hypotheses. In addition, I will critically reflect on the conducted studies and their results, and suggest improvements for further studies. Beyond, I will stress open questions for further research.

Chapter 2

Pre-test of the computer-based paradigm[3]

In recent years, many organizations have established shared databases to facilitate information sharing among their employees. In this case, group members share information not directly with each other, but each individual group member has the possibility to contribute his or her information to the shared database, so that every group member can use this information. Such databases will only be useful, if all employees are willing to update their information in the database regularly and as thoroughly as possible. However, if an individual group member contributes information to the shared database, he or she will lose time for his or her usual work. This constitutes a probabilistic public good dilemma (see Chapter 1 for details). The aim of the used computer-based paradigm was to establish such a dilemma situation and to examine information sharing in an experimental setting.

As described in Chapter 1, the dependent variable considered in my studies was group-serving behaviour in dilemma situations. In the first two studies (see Chapter 3), I used a scenario description to realise a dilemma situation. However, within a scenario I could only assess behavioural intentions. To realise a dilemma situation in which I could assess real group-serving behaviour, the following computer-based task was developed: The participants were asked to imagine that they were customer consultants in a hotel association. Their task was to answer a series of customer inquiries. Furthermore, they were asked to imagine that the hotel association had installed a database to enable the exchange among the locally distributed consultants. To strengthen the dilemma perception, the advantages as well as the disadvantages of such a database exchange were explained to the participants. The dependent measure was the amount of information that the participants contributed to the shared database during their task completion which is one kind of group-serving behaviour.

The pre-test of this computer-based paradigm is described below. The goal of the pre-test was to comprehend the response of student participants to the paradigm: Can they imagine the described situation? Do they understand the task? How do they perceive the database? To examine the perception of the database in more detail, we

manipulated three different amounts of information that the participants received from the database. In the high output condition, the participants received 75 percent of all information that they needed for task completion. In the moderate output condition, the participants received 50 percent of all information. In the low output condition, the participants received 25 percent of all information. The condition with moderate to low contributions to the database should be selected as basis for the manipulation of respect.

Method

Participants

In the pre-test, 61 undergraduate and graduate students of the University of Zurich participated (53 women, 8 men; Age: $M = 25.26$, $SD = 6.72$) who study mainly psychology (59 psychology, 1 biology, 1 pedagogics). On average, they have been studying for 1.48 semesters ($SD = 1.06$, range 1 to 7 semesters). Participants received credit points for compensation.

Design

A computer-based paradigm was developed to realise an information sharing dilemma. Therein, the participants were asked to imagine that they were customer consultants in a hotel association. As customer consultants, they had to answer many customer inquiries and, thus, they had to answer each one as fast as possible. The inquiries included two kinds of information about the arrangement that the customers were looking for. The first kind of information was the number of adults and children, the kind of room and board, and the number of nights they want to stay. Based on this information, the participants had to compute a price. The second kind of information was the leisure activities that the customers want to undertake during their stay. Price and hotel were independent of each other because all hotels had the same prices divided into three price categories. Based on this information, the participants had to find the right hotel for the customers. To achieve the experience of time pressure, the participants were only told that they would be interrupted after an uncertain time period, but they received no information about the number of customer inquiries that they had to answer. All participants actually had to answer eight customer inquiries.

---

[3] The study presented here was supported by the Research Fund of the University of Zurich (Project no. 56232101) granted to Dr. Karin S. Moser.

In addition to the involuntary answering of customer inquiries, the participants had the possibility to contribute price and hotel information to a shared database. The participants were asked to imagine that the hotel association had installed a shared database to enable the exchange among the locally distributed consultants of the hotel association. Both the advantages and the disadvantages were outlined to the participants to realise the dilemma perception. During the answering of customer inquiries, the participants received a fixed amount of price and hotel information from the shared database. In the *low output condition*, the participants received 25 percent of all necessary information. In the *moderate output condition*, they received 50 percent of all necessary information. In the *high output condition*, they received 75 percent of all necessary information. If the participants did not receive price or hotel information from the shared database, they had to compute the price or had to find the right hotel to enter it to the customer inquiry. For this task, they got a booklet with the necessary information. Afterwards, the participants had the possibility to contribute their computed price information or their searched hotel information to the shared database. To contribute the information in conjunction with the particular customer inquiry, the participants had to enter codes following either a price-specific or a hotel-specific code schema. Thereby, the costs of contributions should be established. Figure 2-1 displays the screenshot for one of the customer inquiries.

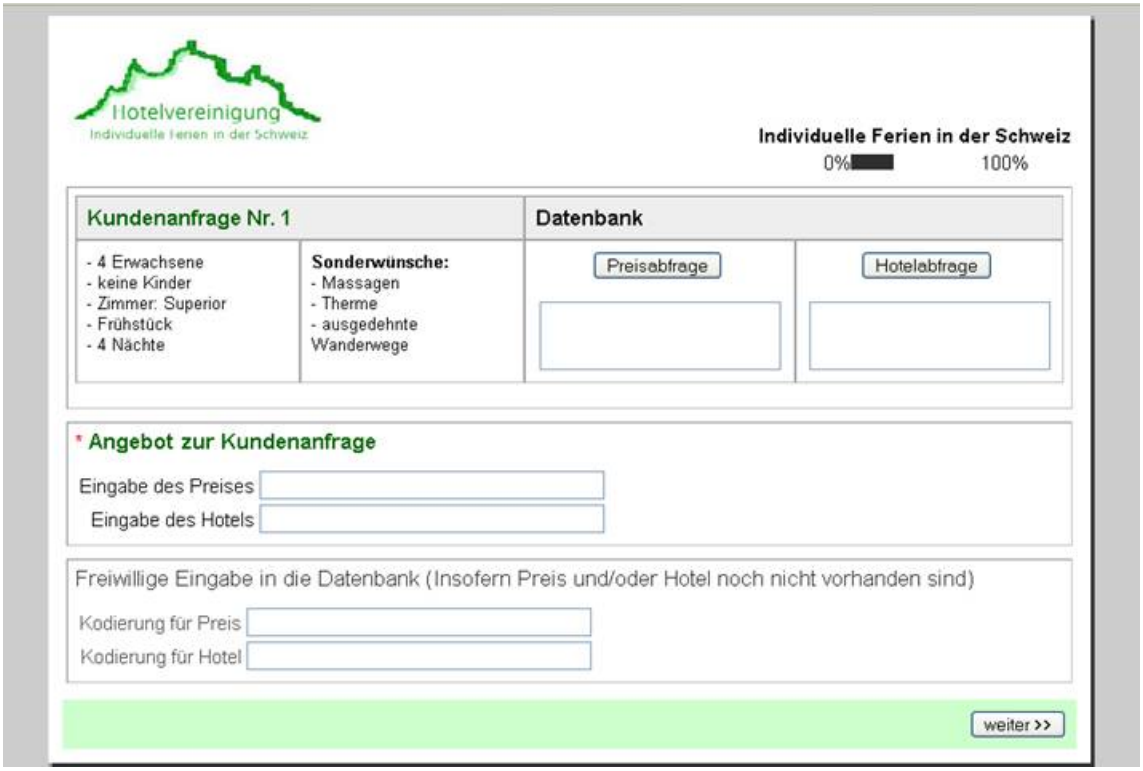


Figure 2-1. Screenshot of one customer inquiry

Note. The studies were all performed with German speaking participants.

Procedure

Participants were randomly assigned to one of the above described conditions, with 21 participants in the high output condition and with 20 participants in the moderate and the low output condition, respectively. The topic of the study was „Strategy of Information Handling and Work Organisation". The experimental procedure was introduced by the experimenter. The participants were requested to read the descriptions carefully. Afterwards, the whole experimental session was guided by computer interface. However, the experimenter was approachable for questions during the whole experimental session.

First, the participants read about the hotel association and the installed database. Second, the task was explained and the participants could practise the task on three customer inquiries. Subsequently, the participants had to handle eight customer inquiries. The contributions to the shared database while answering these eight customer inquiries were operationalised as the dependent measure of information sharing behaviour. After completion of the task, the participants completed a

questionnaire that included measures of the perception of the paradigm as well as identification with the team, importance of collective goals and importance of own contributions. In addition, the perception of the amount of information that the participants received from the database was assessed. Finally, participants were asked to give demographic information. Afterwards, they were debriefed and thanked.

Measures

The contributions to the shared database were assessed during answering eight customer inquiries. Because the participants received different amounts of information in the three conditions, they could contribute different amounts of information to the shared database. Therefore, a ratio of contributed information and possible information was calculated as dependent measure. To find possible differences between contribution of information about the prices and contribution of information about the hotels, two separate scores were calculated.

Furthermore, a series of questions concerning the perception of the paradigm was assessed. The participants were asked to estimate the amount of information that they received from the database. Additionally, the participants should rate how well they could handle the coding and how well they comprehended the user interface (4-point scale ranging from 1 = *very bad* to 4 = *very good*). They should also rate how well they could put themselves in the role of the consultant (4-point scale ranging from 1 = *very bad* to 4 = *very good*). Moreover, they should rate the difficulty of price computing and of hotel search (5-point scale ranging from 1 = *very easy* to 5 = *very difficult*). Finally, they should rate how they perceived the time pressure during task completion (5-point scale from 1 = *very low* to 5 = *very high*).

Besides these, the mediators postulated in my thesis were assessed: Identification with the work group was assessed with two different measures: First with a scale measure of three items following Ellemers, Kortekaas, and Ouwerkerk (1999; e.g., “I would like to continue working with this group.”; 4-point scale ranging from 1 = *strongly disagree* to 4 = *strongly agree*; $\alpha = .87$); second with a graphical measure of seven figures from which participants were asked to choose one following Schubert and Otten (2002). The importance of collective goals was assessed with three items (e.g., “It is very important for me that all group members perform very well.”; $\alpha = .81$). Similarly, the importance of a subject's own contribution was measured with three items following Hertel, Niedner, and Herrmann (2003; e.g., „ I believe that my own contribution is really important for the performance of all group members.“; $\alpha = .69$).

Both were assessed on a 4-point scale ranging from 1 = *strongly disagree* to 4 = *strongly agree*.

Results

Contributions to the database

Overall, participants contributed different amounts of information to the shared database depending on their condition. The multivariate test revealed a significant effect, Wilks' $\lambda = .82$, $F(4, 114) = 2.99$, $p = .02$, $\eta^2 = .10$. In detail, participants contributed more information about the prices to the shared database in the high output condition ($M_{high} = .90$, $SD_{high} = .31$) and the low output condition ($M_{low} = .74$, $SD_{low} = .37$) than in the moderate output condition ($M_{moderate} = .50$, $SD_{moderate} = .47$), $F(2, 58) = 5.37$, $p < .01$, $\eta^2 = .16$. Likewise, participants contributed more information about the hotels to the database in the high output condition ($M_{high} = .75$, $SD_{high} = .34$) and the low output condition ($M_{low} = .71$, $SD_{low} = .32$) than in the moderate output condition ($M_{moderate} = .45$, $SD_{moderate} = .45$), $F(2, 58) = 3.87$, $p = .02$, $\eta^2 = .12$.

Perception of the paradigm

The participants estimated almost the exact amount of information that they received from the database. In the low output condition (25 percent), the participants estimated that they received 26.43 percent of the necessary information ($SD = 9.89$). In the moderate output condition (50 percent), the participants estimated that they received 49.25 percent of the necessary information ($SD = 7.12$). In the high output condition (75 percent), the participants estimated that they received 67.05 percent of the necessary information
($SD = 9.51$).

Overall, the participants could handle the coding ($M = 3.16$, $SD = .73$) and comprehended the user interface ($M = 3.48$, $SD = .65$; both 4-point scale) well to very well. They were able to put themselves rather well in the role of the consultant ($M = 3.02$, $SD = .65$; 4-point scale). In addition, price computing ($M = 2.66$, $SD = .93$) and hotel search ($M = 2.08$, $SD = .77$; both 5-point scale) were experienced as rather easy to medium. The hotel search was experienced a little bit easier than the price computing. At last, the time pressure was experienced being medium ($M = 3.23$, $SD = .94$; 5-point scale).

The participants in the three conditions differed in their perception of the paradigm. The multivariate test revealed a significant effect, Wilks' $\lambda = .54$,

$F(12, 104) = 3.10$, $p < .01$, $\eta^2 = .26$. The participants showed significant differences in the handling of the coding ($F(2, 57) = 4.29$, $p = .02$, $\eta^2 = .13$), in the imagination of the role of the consultant ($F(2, 57) = 10.70$, $p < .01$, $\eta^2 = .27$) as well as in the difficulty of the price computing ($F(2, 57) = 11.02$, $p < .01$, $\eta^2 = .28$). Moreover, the participants showed marginally significant differences in the comprehension of the user interface ($F(2, 57) = 2.80$, $p = .07$, $\eta^2 = .09$). However, they did not show significant differences in the perceived difficulty of the hotel search ($F(2, 57) = 2.25$, $p = .11$, $\eta^2 = .07$) and in their perception of the time pressure ($F(2, 57) = .57$, $p = .57$, $\eta^2 = .02$). The means and standard deviations are presented in Table 2-1.

Table 2-1

Perception of the paradigm: Means and standard deviations *separated by conditions of the pre-test*

	Output condition					
	Low		Moderate		High	
	M	*SD*	*M*	*SD*	*M*	*SD*
Ease of handling the coding[a]	2.85	.75	3.15	.81	3.50	.51
Comprehension of the user interface[a]	3.30	.57	3.40	.75	3.75	.55
Putting oneself in the role of the consultant[a]	2.80	.52	2.80	.62	3.50	.51
Difficulty of price computing[b]	3.25	.85	2.65	.88	2.05	.69
Difficulty of hotel search[b]	2.35	.75	1.85	.88	2.05	.61
Time pressure[b]	3.35	1.09	3.30	.73	3.05	1.00

Notes. $N = 20$ [a] 4-point scale [b] 5-point scale

Perception of the group situation

Overall, the participants weakly identified with the group of consultants (scale measure: $M = 2.97$, $SD = .56$; 4-point scale; graphical measure: $M = 4.34$, $SD = 1.28$; 7-point scale) and perceived their contribution ($M = 2.86$, $SD = .58$) as well as the collective goals ($M = 3.11$, $SD = .67$; both 4-point scale) as weakly important.

The comparison of the participants in the three conditions revealed differences in their perception of the group situation. The multivariate test revealed a significant effect of the conditions, Wilks' $\lambda = .64$, $F(8, 110) = 3.47$, $p < .01$, $\eta^2 = .20$. The participants showed a significantly different identification with the group (scale measure: $F(2, 58) = 10.45$,
$p < .01$, $\eta^2 = .27$; graphical measure: $F(2, 58) = 4.61$, $p = .01$, $\eta^2 = .14$), a significantly different perceived importance of own contributions ($F(2, 58) = 3.52$, $p = .04$, $\eta^2 = .11$) and a significantly different perceived importance of collective goals ($F(2, 58) = 5.31$, $p < .01$, $\eta^2 = .16$). The means and standard deviations are presented in Table 2-2.

Table 2-2

Perception of the group situation: Means and standard deviations *separated by conditions of the pre-test*

	Output condition					
	Low[a]		Moderate[b]		High[b]	
	M	*SD*	*M*	*SD*	*M*	*SD*
Identification with the group (scale)[c]	2.74	.49	2.80	.62	3.38	.31
Importance of own contribution[c]	2.93	.45	2.60	.65	3.05	.56
Importance of collective goals[c]	3.05	.66	2.83	.64	3.47	.58
Identification with the group (graphical)[d]	4.14	1.32	3.90	1.12	5.00	1.17

Notes. [a] $N = 21$ [b] $N = 20$ [c] 4-point scale [d] 7-point scale

Discussion

The results of the pre-test revealed that the paradigm is well designed and the task is presented in a comprehensive way. Furthermore, the participants experienced a medium time pressure which points to good task involvement. The verbal commentaries of the participants after completion of the study supported the acceptance of the task: Many participants characterised the task as exciting and said that they delved into the task. In addition, the results concerning the perception of the group situation showed that a group was perceived although it was not present. This argumentation is supported by the fact that there were no missing values although the participants had the possibility not answer the questions. In addition, in the input field at the end of the questionnaire only one participant mentioned difficulties to imagine the other group members and to answer the corresponding questions.

In addition to examining the comprehensibility of the task, I aimed to select one of the three implemented conditions for further studies investigating the effect of respect on information sharing. Therefore, I needed a condition in which the participants do not already contribute much information into the database. This seems to be the moderate output condition: Herein, the participants contributed approximately half of the possible information to the shared database. In addition, the participants showed a good to very good comprehension of the user interface and the task. Last but not least, they weakly identified with the group and perceived a weak importance of own contributions and of collective goals. This is also important because I expected that giving respect enhances the identification with the group and the perceived importance of own contributions and collective goals. Thus, the moderate output condition was selected as the basis for the manipulation of respect and was used for the studies presented in Chapter 4.

Chapter 3

‘You are doing great!’ The effect of respect on group-serving behaviour within groups[4]

Katrin Wodzicki & Karin S. Moser

Abstract: Respect from fellow group members can promote group-serving behaviour. Whereas treatment-based respect has attracted much attention from researchers, other forms of respect such as competence-based respect and liking-based respect have been addressed far less. Two experimental studies (n_1 = 38, n_2 = 240) were designed to study the effect of these two forms of respect on group-serving behaviour in work groups. Both forms of respect led to greater willingness to invest time and energy in group work and to higher motivation for extra effort. In Study 2, the effect of both forms of respect on group-serving behaviour intentions was moderated by perceived reciprocity in the work context. In addition, we confirmed that identification with the work group and perceived importance of collective goals partly mediate the effect of perceived respect on attitude towards investment and intention to extra-effort.

Keywords: competence-based respect, liking-based respect, group-serving behaviour, social identification, perceived reciprocity

[4] The studies presented here were supported by the Research Fund of the University of Zurich (Project no. 56232101) granted to the second author Dr. Karin S. Moser.

Paul is a member of a work group. In order to support the other group members and to improve their collective results, he has prepared an informative paper. As he passes it to his fellow group members, nobody seems to appreciate his helpful contribution. Will he volunteer a contribution again in a similar situation in the future?

Respect is important for self-esteem and motivation of any human individual. But people need not to be respected by everybody. It is important who respects or disrespects them. In this regard, group membership plays a key role (Branscombe, Spears, Ellemers, & Doosje, 2002; Ellemers, Doosje, & Spears, 2004). People with whom one shares a common identity are especially significant. Respect from fellow group members communicates acceptance and inclusion within the group. According to Baumeister and Leary (1995), all people need to belong and need to feel accepted. Respect from fellow group members fosters not only the individual's self-esteem and feelings of inclusion, but also the individual's behaviour within the group and towards fellow group members, the so called group-serving behaviour.

To date, most research on respect has considered how fair treatment – the so called treatment-based respect – affects attitude and behaviour of a person within a group. Different studies showed that a person who is treated fairly by fellow group members has a more positive attitude towards the group and shows more group-serving behaviour (e.g., Smith & Tyler, 1997). Research on other forms of respect is rare. However, information about how much a group member is liked by other group members (liking-based respect) and about how the other group members perceive his or her competence (competence-based respect) are also important for behaviour and attitude of a group member (e.g., Spears, Ellemers, & Doosje, 2005). However, the few studies on liking-based respect and competence-based respect have not considered group-serving behaviour in work groups. Furthermore, research has shown that identification with the group is an important mediator of the effect of respect on attitude and behaviour within groups (e.g., Simon & Stürmer, 2003). Again, most research on identification and respect has focused on treatment-based respect, but not liking-based or competence-based respect.

Given the importance of group-serving behaviour for the functioning of work groups and the current state of research on respect, it was the aim of our studies to examine the effect of liking-based respect and competence-based respect on group-serving behaviour in a work group context. We expected that both forms of respect have positive effects on group-serving behaviour and that this effect is moderated by

perceived reciprocity in the work context. Moreover, we studied whether competence-based respect and liking-based respect result in higher identification with the group and thus promote group-serving behaviour. In addition, we examined two more mediators that have not been considered in research to date. We postulated that people who receive competence-based respect and liking-based respect from their fellow group members perceive collective goals and their contribution to achieving collective goals as more important than people who do not receive any form of respect.

Theoretical background

Most studies on respect stem from research on procedural justice. In these studies, respect is communicated through the way someone is treated by the group or other group members or by a group authority – so called treatment-based respect. The reasoning is that fair treatment by fellow group members indicates the status of a person within the group and the acceptance by fellow group members and, therefore, the person feels respected.

Many experimental and field studies have examined the effect of treatment-based respect on emotions, self-worth, and group-serving behaviour (e.g., De Cremer, 2002, 2003; De Cremer & Tyler, 2005; Simon & Stürmer, 2005, 2003; Smith & Tyler, 1997; Tyler & Blader, 2001). For example, De Cremer (2003) showed that treatment-based respect from fellow group members increased contributions to a public good. Tyler and Blader (2001) found in a field study that treatment-based respect had positive effects on extra-role and in-role behaviour.

Besides research on treatment-based respect, there are several experimental studies on the effects of liking-based respect on emotional reaction, collective self-esteem, commitment to the group, and group-serving behaviour (Branscombe, Spears, Ellemers, & Doosje, 2002; Ellemers, Doosje, & Spears, 2004; Simon & Stürmer, 2005; Spears et al., 2005) as well as a study of the effects of competence-based respect on emotional reaction, collective self-esteem, and commitment to the group (Spears et al., 2005). In perceiving and judging other persons, people focus on likeability and competence (for a review: Wojciszke, 2005), which makes these dimensions central to respect research as well. Both treatment-based respect and liking-based respect are relational forms of respect, yet they are also distinct: You can treat people respectfully, even if you do not like them. In contrast to these two relational forms of respect,

competence-based respect communicates one's subjective evaluations of another individual's competence or ability. The studies mentioned above found that both forms of respect enhance positive emotions, collective self-esteem, and group-serving behaviour.

The relationship between respect, and attitude and behaviour with reference to groups has been elaborated in the group-engagement model (Tyler & Blader, 2003). The group-engagement-model was originally based on procedural justice research and studies about treatment-based respect, but also goes beyond those aspects. According to the model, feelings of respect are influenced by perceived procedural justice, but also by the resources that the individual group member receives from the group. The importance of resources is based on social exchange theory (Kelley & Thibaut, 1978; Rusbult & Van Lange, 1996; Thibaut & Kelley, 1959), but the group-engagement model does not specify in what respect resources are crucial for the individual group member. We therefore suggest integrating competence-based respect and liking-based respect as resources of self-validation into the group-engagement model because both forms of respect are important for people to evaluate themselves (Karau & Williams, 2001) and, thus, both forms should result in feeling respected. By doing so, we can now apply the propositions of the group-engagement model to competence-based respect and liking-based respect.

The model proposes that when a group member feels respected by other group members he or she identifies more strongly with the group. In turn, identification with a group enhances a positive attitude towards the group and group-serving behaviour, as has been proposed in the so-called social identity mediation hypothesis. The important role of social identification for group behaviour was first stressed by social identity theory (Tajfel & Turner, 1979). Tajfel (1978) defines social identity as "that part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership" (p. 63). Several studies demonstrated the positive effects of social identification on social perception as well as on group-serving behaviour (e.g., Ashforth & Mael, 1989; Brown, 2000; Tajfel & Turner, 1986; van Knippenberg, 2000).

How much empirical support can we find for the social identity mediation hypothesis? In previous studies, identification with the group has been supported as mediator of the effect of respect on group-serving behaviour (De Cremer, 2003, 2002; Simon & Stürmer, 2005, 2003). For example, Simon and Stürmer (2003) showed that

participants identified more strongly with the group when fellow group members treated them with respect and, hence, they showed more group-serving behaviour. Until now, none of the studies that considered competence-based respect or liking-based respect has examined the mediating role of identification with the group. However, Spears et al. (2005) showed that both liking-based respect and competence-based respect enhance the commitment to the group. This result is consistent with the idea that both forms of respect are important resources: They improve feelings of respect and, thus, increase identification with the group. In turn, higher identification with the group should entail group-serving behaviour, but this has not been tested so far.

Based on further theoretical considerations, we postulate two additional mediating processes. As mentioned before, competence-based respect and liking-based respect are crucial for self-evaluation (Karau & Williams, 2001). In particular, competence-based respect contains information on how fellow group members appreciate abilities of an individual group member. As a consequence, competence-based respect indicates that fellow group members perceive the individual member's contribution to the group work as important. If individual group members receive this information via competence-based respect, they will consequently perceive their individual contribution to the group work as more important than without competence-based respect. Additionally, competence-based respect as well as liking-based respect informs a group member that the relationship with the group is intact and - in the case of liking-based respect - is based on mutual sympathy. This intact relationship entails in turn also obligations to the group (Simon & Stürmer, 2005). Thus, if group members receive liking-based respect, they will perceive their individual contribution to the group work as more important as well. Furthermore, the information about the intact relationship and the associated obligations to the group should foster the importance of collective goals for both forms of respect. As pointed out in the collective effort model (Karau & Williams, 2001), people who perceive their own contribution as important are more motivated to engage in collective tasks. The same is true if people perceive collective goals as important. Thus, both forms of respect should result in more group-serving behaviour, and the perceived importance of own contributions and of collective goals should mediate the effect of perceived respect on group-serving behaviour.

Another important aspect also stemming from the group-engagement model und social exchange theory is the context of group work which also affects the extent to which both forms of respect promote group-serving behaviour. Competence-based

respect and liking-based respect are only two of the resources that group members receive from other group members, and their impact should vary depending on the total amount of exchanged resources within the work group. According to social exchange models (Kelley & Thibaut, 1978; Rusbult & Van Lange, 1996; Thibaut & Kelley, 1959), individuals exchange a multitude of material and non-material resources. When giving and taking of resources is in balance, this is referred to as high reciprocity. In a context of high reciprocity, the once-only absence of respect does not have the same significance as in the context of low reciprocity: If individuals feel that they receive a share equal to what they put in and respect is absent only once, the balance in social exchange relations will not be affected in the same way as in groups with low or moderate perceived reciprocity.

Aim of the current studies

The aim of the present paper is to contribute to the recent discussion of competence-based respect and liking-based respect. To our knowledge, only one publication considered both forms of respect (Spears et al., 2005) so far. Spears et al. examined the interactive effects of both forms on group members' emotional reaction, collective self-esteem, and commitment to the group. Other studies only looked at either competence-based or liking-based respect and usually not in work groups (Branscombe et al., 2002; Ellemers et al., 2004; Simon & Stürmer, 2003, 2005). Therefore, our studies aimed to extend the research on competence-based respect and liking-based respect by comparing the effects of both forms of respect on group-serving behaviour intentions within work groups.

Furthermore, we considered different mediators to explain why respected people show a more positive attitude towards the group and more group-serving behaviour. Authors of previous studies on treatment-based respect have considered and confirmed identification with the group as the main mediator: When people are treated fairly by their fellow group members, they identify more strongly with the group and, thus, they show more group-serving behaviour (e.g., Simon & Stürmer, 2005, 2003). We expected therefore that competence-based respect and liking-based respect should strengthen the identification with the group as well, and that stronger identification should have positive effects on group-serving behaviour intentions. In addition, we considered two further mediators: the perceived importance of the individual's contributions to the

group work and the perceived importance of collective goals. Both perceptions should be affected by competence-based respect and liking-based respect and should in turn influence group-serving behaviour intentions within the work group.

In addition, we investigated the influence of perceived reciprocity as a contextual moderator. As mentioned above, group members share resources to different degrees. If group members share a great amount of resources, they will experience high reciprocity. According to the group-engagement model, the more resources group members receive from the group, the more they feel respected by other group members. In a high reciprocity situation, the once-only absence of respect should not be so influential. We therefore proposed that competence-based respect and liking-based respect both will increase group-serving behaviour intentions only if the perceived reciprocity in the work context is low to moderate, but not in a high reciprocity context. Figure 3-1 shows the model we postulated including identification with the group, importance of own contributions, and importance of collective goals as mediators, and with perceived reciprocity as contextual moderator.

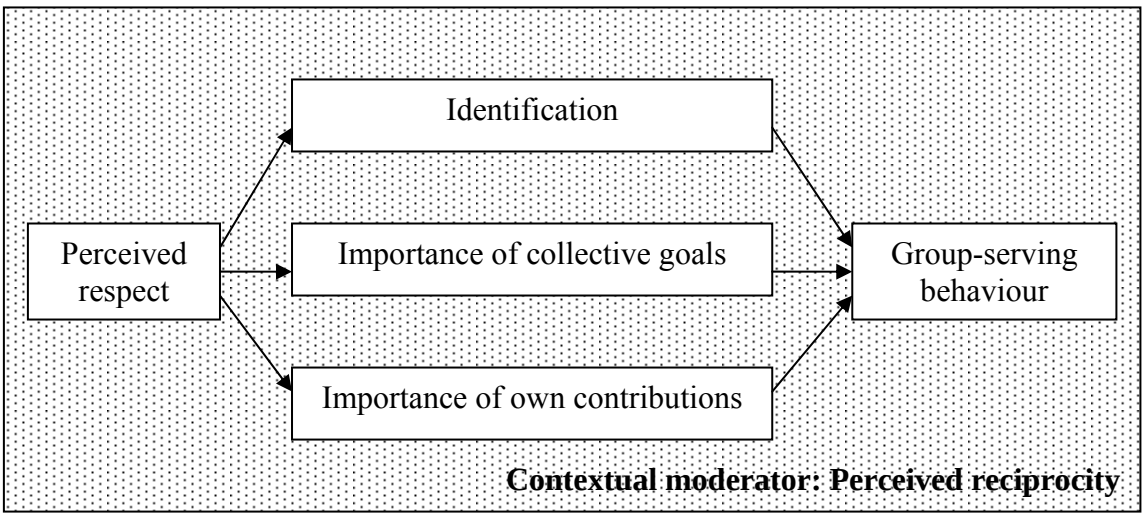


Figure 3-1. Mediation model of the effect of respect on group-serving behaviour

Study 1

In the first study, we intended to test our research design and to establish the effect of competence-based respect on group-serving behaviour intentions.

Method

Participants

Thirty-eight undergraduate and graduate psychology students of the University of Zurich participated (25 women, 13 men; Age: $M = 22.92$, $SD = 4.07$). On average, they had been studying for 3.21 semesters ($SD = 1.36$, range 2 to 11 semesters). Participants received credit points for compensation.

Design

In the first study, a manipulation of competence-based respect was tested against a control group (no competence-based respect). To manipulate competence-based respect, two kinds of a student work group scenario were realized. In both conditions, the participants were asked to imagine the following situation: They were part of a seminar work group consisting of three university students, and their assignment was to conduct a literature research and to write a term paper about a common topic. Although they have to write a joint term paper, each of the three students was responsible for one part of the term paper and for a presentation about his or her part. Thus, the students had to coordinate their work, but cooperation within the group could be reduced to a minimum.

Likewise in both conditions, the first stage of the group work was described as having gone well, because pre-tests had shown that otherwise the other group members were seen as incompetent and, as result, no feeling of being respected emerged. Our interpretation of this effect is that when the participants received no information about the competence of the other group members, they are in doubt about it. In this case, the participants inferred that the other group members are incompetent because they did not show the same competent behaviour as themselves.

Then, the next group meeting was described in the scenario. We asked the participants to imagine that they had found some interesting journal papers by looking up the references in another journal paper and, although the group had decided to do the literature research separately, they had made copies of the journal papers for all group members to improve the group work. Next, we introduced the experimental

manipulation: In the competence-based respect condition, the other two group members were described as being impressed by this competent act of the participant and as being certain that these journal papers will be important for the work of all group members. In the no competence-based respect condition, the other two group members were described as showing no reaction and as taking the copies as a matter of course.

Former studies examined competence-based respect and liking-based respect mainly in an intergroup context to enhance the salience of the ingroup. We believe that we should find a group perception and, thus, positive effects of respect on group-serving behaviour even without an intergroup context. Support for this proposition stems from Gaertner, Iuzzini, Gerrerro Witt, and Oriña (2006) who showed that group members even feel as a group when they have the possibility to interact or depend on one another without an intergroup context. For work groups, both factors - interaction and interdependence - are typical and, thus, it was not necessary to stress an intergroup context within the scenario description.

Procedure

Because the study took place in a seminar class on literature research, all participants took part at the same time. Participants were randomly assigned to one of the experimental conditions, with 19 participants in each condition. The topic of the study was „Work strategies during university education". The scenario was introduced by the experimenter. The participants were requested to take some time to put themselves into the described situation. After having read the scenario description, the participants completed a questionnaire that included measures of attitude towards investment, intention to extra-effort, attitude towards reciprocal cooperation, and perceived respect. Finally, participants filled in demographic information. Afterwards, they were debriefed and thanked.

Measures

Attitude towards investment. Participants rated their attitude towards investment in the described group situation on a scale consisting of three items (adapted from Moser, 2002) An example item is "I would help the other two group members without expecting direct return." (4-point scale ranging from 1 = *strongly disagree* to 4 = *strongly agree*; $\alpha = .59$).

Intention to extra-effort. Three items described some typical situations concerning extra-effort within group work, e.g., "The other two group members want a meeting to clarify some open questions. You get by on your own. That's why the

meeting will not have any benefit for you. In addition, you are very busy with your studies and you have many other things to do. What do you do? I take part in the meeting anyway." The participants should rate their reactions on a 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree* ($\alpha = .64$).

Attitude towards reciprocal cooperation. As a control variable, we also assessed attitude towards reciprocal cooperation in the described work situation (4-point scale ranging from 1 = *strongly disagree* to 4 = *strongly agree*). In contrast to the attitude towards investment, participants should not rate their individual behaviour but how they perceive the benefits if all group members cooperate with each other (adapted from Moser, 2002; e.g., "Cooperation and exchange will have pay off for everybody."; $\alpha = .95$).

Perceived respect. One item measured the perception of respect for the engagement within the group ("When I stick up for the other two group members and I support them with my knowledge, they will appreciate it."; 4-point scale ranging from 1 = *strongly disagree* to 4 = *strongly agree*).

Results

Perceived respect

Participants felt more respected in the competence-based respect condition than in the no competence-based respect condition ($M_{\text{respect}} = 3.26$, $SD_{\text{respect}} = .56$; $M_{\text{no respect}} = 2.63$, $SD_{\text{no respect}} = .76$; 4-point scale), $F(1, 36) = 8.47$, $p < .01$. Thus, the manipulation resulted in feelings of respect.

Main analysis

To test the effect of competence-based respect on attitude towards investment and intention to extra-effort, a multivariate analysis of variance was conducted. We predicted that participants would show more positive attitude towards investment and stronger intention to extra-effort in the competence-based respect condition than in the no competence-based respect condition. The multivariate test revealed a marginally significant effect (Wilks' $\lambda = .85$, $F(2, 35) = 2.99$, $p = .06$, $\eta^2 = .15$). Participants in the competence-based respect condition showed more positive attitude towards investment than participants in the no competence-based respect condition ($M_{\text{respect}} = 3.28$, $SD_{\text{respect}} = .39$; $M_{\text{no respect}} = 3.07$, $SD_{\text{no respect}} = .33$; 4-point scale), $F(1, 36) = 3.27$, $p = .08$, $\eta^2 = .08$. In addition, participants in the competence-based respect condition were significantly more willing to put in extra-effort than participants in the no

competence-based respect condition ($M_{\text{respect}} = 5.16$, $SD_{\text{respect}} = .62$; $M_{\text{no respect}} = 4.61$, $SD_{\text{no respect}} = .88$; 6-point scale), $F(1, 36) = 4.81$, $p = .04$, $\eta^2 = .12$. Overall, the results confirmed our expectations.

Both effects of the univariate tests show a medium effect size following Cohen (1988), although only the intention to extra-effort reached statistical significance. The effect size η^2 is the proportion of the total variance that is attributed to the manipulation. Thus, 8 percent of the variance in attitude towards investment and 12 percent of variance in intention to extra-effort is explained by presence versus absence of competence-based respect.

As expected, the attitude towards reciprocal cooperation was very positive ($M = 3.55$, $SD = .50$; 4-point scale), but did not differentiate significantly between the two experimental conditions, $F(1, 36) = .11$, $p = .75$.

Discussion

We used the scenario technique to manipulate competence-based respect. We showed that participants in the competence-based respect condition felt more respected for their engagement within the group than participants in the no competence-based respect condition. Furthermore, the results of Study 1 confirm that the presence of competence-based respect entails stronger group-serving behaviour intentions in comparison with the absence of competence-based respect. Specifically, participants who received competence-based respect showed a more positive attitude towards investment and a significantly stronger intention to extra-effort than participants who did not receive competence-based respect. Taking into account the very positive attitude towards reciprocal cooperation, these results reveal a strong effect of competence-based respect. In sum, we tested our research design successfully and the results confirm the positive effect of competence-based respect on group-serving behaviour intentions.

Study 2

In Study 2, we extended our aims and examined the effect of competence-based respect as well as the effect of liking-based respect on group-serving behaviour intentions. We included a larger and more heterogeneous sample to test additionally whether perceived reciprocity in the study context is a moderator for the effect of both forms of respect on group-serving behaviour intentions. Furthermore, we tested whether identification with the group, importance of collective goals, and importance of own contributions are mediators of this effect.

Method

Participants

In Study 2, 240 undergraduate and graduate students of the University of Goettingen with different study majors participated (135 women, 102 men, 3 missing values; Age: M = 23.93, SD = 2.78). On average, they had been studying for 6.23 semesters (SD = 2.66, range from 0 to 15 semesters). Participants either received credit points or took part in a lottery for compensation.

Design

Study 2 used a 2 x 2 factorial between-groups design. The first factor was the described behaviour: Either the behaviour was described as competent or as likeable. The second factor was the presence of respect: Either the respect was present or absent.

The materials were the same as in Study 1, except for one alteration: In addition to the two previously described conditions with presence and absence of competence-based respect, two more conditions manipulated the presence and absence of liking-based respect. In these, both the work group and the behaviour shown by the participant were described as likeable. Afterwards, the other two group members were either impressed by the likeable behaviour of the participant (liking-based respect condition) or showed no reaction and took it as a matter of course (no liking-based respect condition).

Procedure

Study 2 was conducted on-line. Participants were recruited all over the campus of the University of Goettingen. The participants were randomly assigned to one of the four experimental conditions and received the appropriate link via mail. Of all invited students, 72 took part in the competence-based respect condition, 62 in the no

competence-based respect condition, 58 in the liking-based respect condition, and 48 in the no liking-based respect condition. The unequal cell sizes result from the different return rates.

The topic of the study was again „Work strategies during university education." On the first internet page of the study, the participants were introduced to the procedure. They were requested to take some time to put themselves into the described situation and to then continue with answering the questions. After having read one of the four scenario descriptions, the participants completed the same questionnaire as in Study 1. Some additional scales were included in the questionnaire: Following from our hypotheses for the mediating processes, we asked subjects about the identification with the group, importance of collective goals, and importance of own contributions. In addition, participants completed a scale on perceived reciprocity at university. After completion of the data collection and analysis, the participants were debriefed and informed about the results of the study via mail.

Measures

Attitude towards investment. We used the 3-item scale of Study 1 to measure the attitude towards investment (adapted from Moser, 2002; α = .63). Contrary to Study 2, the items were rated on a 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*.

Intention to extra-effort. We used the 3-item scale of Study 1 to measure the intention to extra-effort (α = .64).

Attitude towards reciprocal cooperation. Likewise, we used the 3-item scale of Study 1 to measured the attitude towards reciprocal cooperation (adapted from Moser, 2002; α = .86). Contrary to Study 1, the items were rated on a 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*.

Mediators. Identification with the work group was assessed with two different measures: First with a scale measure of three items following Ellemers, Kortekaas, and Ouwerkerk (1999; e.g., "I would like to continue working with this group."; 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*; α = .79); second with a graphical measure of seven figures from which participants were asked to choose one following Schubert and Otten (2002).

The importance of collective goals was measured with three items (e.g., "It is very important for me that all group members receive a very good mark."; α = .74). Similarly, the importance of subjects' own contribution was measured with three items

following Hertel, Niedner, and Herrmann (2003; e.g., „ I believe that my own contribution is really important for the performance of all group members.“; α = .66). Both were assessed on a 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*.

Perceived respect. We used the same item as in Study 1 to measure perceived respect, but on a 6-point scale ranging from 1 = strongly disagree to 6 = strongly agree.

Control. We also used a 9-item scale to measure the perceived reciprocity at university (Moser, 2002, e.g., “Within my studies, we help each other without expecting direct return.”; 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*; α = .85).

Results

Perceived respect

As an analysis of variance revealed, the four conditions did not differ in their effects on the perception of respect, $F(3, 235) = 1.47$, $p = .22$. To test for differences between the competence-based respect condition and the no competence-based respect condition, we performed a contrast analysis that revealed that participants in the competence-based respect condition felt more respected ($M_{\text{comp respect}} = 4.42$, $SD_{\text{comp respect}} = .85$) than participants in the no competence-based respect condition ($M_{\text{no comp respect}} = 4.19$, $SD_{\text{no comp respect}} = .94$), $t(235) = 1.61$, $p = .05$, one-tailed. In contrast, no significant differences existed between the liking-based respect condition and the no liking-based respect condition, $t(235) = .77$, $p = .22$, one-tailed. Participants in the liking-based respect condition did not feel more respected ($M_{\text{like respect}} = 4.48$, $SD_{\text{like respect}} = .63$) than participants in the no liking-based respect condition ($M_{\text{no like respect}} = 4.36$, $SD_{\text{no like respect}} = .71$). Thus, only competence-based respect was perceived as respect, but liking-based respect was not.

Main Analyses

We predicted that participants in both respect conditions would have a more positive attitude towards investment and a stronger intention to extra-effort than participants in the two no respect conditions. A multivariate analysis of variance revealed a marginally significant result, Wilks’ $\lambda = .95$, $F(6, 470) = 1.98$, $p = .07$, $\eta^2 = .03$. The two univariate tests revealed significant results for attitude towards investment, $F(3, 236) = 3.01$, $p = .03$, $\eta^2 = .04$, and for intention to extra-effort, $F(3, 236) = 3.18$, $p = .03$, $\eta^2 = .04$.

In a second step, we introduced perceived reciprocity at the university as a covariate. As expected, the multivariate test showed that perceived reciprocity at the university indeed was a significant covariate, Wilks' $\lambda = .80$, $F(2, 232) = 29.50$, $p < .01$, $\eta^2 = .20$. Taking into account perceived reciprocity, the multivariate test revealed a significant effect of the experimental conditions, Wilks' $\lambda = .92$, $F(6, 464) = 3.21$, $p < .01$, $\eta^2 = .04$. The two univariate tests revealed significant results for the attitude towards investment, $F(3, 233) = 5.11$, $p < .01$, $\eta^2 = .06$, and for the intention to extra-effort, $F(3, 233) = 4.95$, $p < .01$, $\eta^2 = .06$.

Effect sizes are somewhat smaller than in Study 1, even if we take perceived reciprocity at university into account. The respect manipulation accounts for only 6 percent of the total variance of attitude towards investment and of intention to extra-effort which is a small effect according to Cohen (1988).

We conducted two separate analyses for liking-based respect and competence-based respect and their respective control conditions. For competence-based respect, perceived reciprocity at the university was a significant covariate (Wilks' $\lambda = .82$, $F(2, 129) = 14.00$, $p < .01$, $\eta^2 = .18$) and significant differences between the conditions existed (Wilks' $\lambda = .94$, $F(2, 129) = 4.20$, $p = .02$, $\eta^2 = .06$). Participants in the competence-based respect condition showed a more positive attitude towards investment ($M_{\text{comp respect}} = 4.69$, $SE_{\text{comp respect}} = .09$) than participants in the no competence-based condition ($M_{\text{no comp respect}} = 4.39$, $SE_{\text{no comp respect}} = .10$), $F(1, 130) = 5.22$, $p = .02$, $\eta^2 = .04$. And, participants in the competence-based respect condition showed stronger intention to extra-effort ($M_{\text{comp respect}} = 5.14$, $SE_{\text{comp respect}} = .09$) than participants in the no competence-based respect condition ($M_{\text{no comp respect}} = 4.77$, $SE_{\text{no comp respect}} = .10$), $F(1, 130) = 8.19$, $p < .01$, $\eta^2 = .06$.

To further examine the moderation effect of perceived reciprocity at university, we conducted a number of regression analyses with perceived reciprocity, using the experimental conditions and the multiplicative combination of both as predictors, and attitude towards investment and intention to extra-effort as dependent measures, respectively. The predictors were z-standardized for these analyses. Significant interaction effects were analysed following the procedure proposed by Aiken and West (1991). This means that the prediction of the dependent measures by the conditions was calculated for three different values of the moderator: one standard division below the mean, the mean, and one standard division above the mean.

For attitude towards investment, the regression analysis revealed two significant main effects (condition: $\beta_{mean} = .15$, $p = .02$; perceived reciprocity: $\beta = .30$, $p < .01$), but no significant interaction ($\beta = .09$, $p = .18$). Thus, no further analyses were conducted.

For intention to extra-effort, the regression analysis revealed two significant main effects (condition: $\beta_{mean} = .19$, $p < .01$; perceived reciprocity: $\beta = .31$, $p < .01$) and a significant interaction ($\beta = .17$, $p = .01$). Further analyses revealed that intention to extra-effort was influenced by competence-based respect when perceived reciprocity was low ($\beta_{below} = .35$, $p < .01$), but not when perceived reciprocity was high ($\beta_{above} = .02$, $p = .83$). Thus, competence-based respect did not positively affect intention to extra-effort when participants experienced high reciprocity at the university. Only when they perceived low to moderate reciprocity, participants were influenced by the presence and absence of respect and showed a stronger intention to extra-effort in the competence-based respect condition than in the no competence-based respect condition.

For liking-based respect, the perceived reciprocity at the university was also a significant covariate (Wilks' $\lambda = .74$, $F(2, 101) = 17.94$, $p < .01$, $\eta^2 = .26$) and the multivariate test revealed a significant effect of the conditions (Wilks' $\lambda = .89$, $F(2, 101) = 6.54$, $p < .01$, $\eta^2 = .12$). Participants in the liking-based respect condition showed a more positive attitude towards investment ($M_{\text{like respect}} = 4.76$, $SE_{\text{like respect}} = .08$) than participants in the no liking-based respect condition ($M_{\text{no like respect}} = 4.35$, $SE_{\text{no like respect}} = .09$), $F(1, 102) = 12.31$, $p < .01$, $\eta^2 = .11$. Participants in the liking-based respect condition showed also a stronger intention to extra-effort ($M_{\text{like respect}} = 5.14$, $SE_{\text{like respect}} = .09$) than participants in the no liking-based respect condition ($M_{\text{no like respect}} = 4.83$, $SE_{\text{no like respect}} = .08$), $F(1, 102) = 5.98$, $p = .02$, $\eta^2 = .06$.

We again conducted the above described regression analyses. For attitude towards investment, the regression analysis revealed two significant main effects (condition: $\beta_{mean} = .21$, $p < .01$; perceived reciprocity: $\beta = .33$, $p < .01$) and a significant interaction ($\beta = .13$, $p = .02$). The further analyses indicated that liking-based respect positively affected attitude towards investment under low perceived reciprocity ($\beta_{below} = .34$, $p < .01$), but not under high perceived reciprocity ($\beta_{above} = .08$, $p = .35$).

For intention to extra-effort, the regression analysis revealed two significant main effects (condition: $\beta_{mean} = .16$, $p = .01$; perceived reciprocity: $\beta = .26$, $p < .01$) and a significant interaction ($\beta = .15$, $p = .02$). Liking-based respect positively affected

intention to extra-effort under low perceived reciprocity (β_{below} = .31, p = .01), but not under high perceived reciprocity (β_{above} = .01, p = .90).

As in Study 1, attitude towards reciprocal cooperation was very high (M = 5.05, SD = .79), but did not differentiated between the four conditions, $F(3, 236)$ = .39, p = .76.

Mediation analyses

To test our hypotheses that identification with the group, importance of collective goals, and importance of own contributions mediate the effect of respect on group-serving behaviour, we conducted path analyses with AMOS. For each dependent variable, a path model with six manifest variables was computed: the measurement of perceived respect, the scale measure and the graphical measure of identification, the importance of collective goals, the importance of own contributions, and attitude towards investment and intention to extra-effort, respectively (see figures).

Figure 3-2 shows the path model for attitude towards investment. In the model, we allowed for all significant inter-correlations between the mediating variables. The model had a very good fit, χ^2 (2, N = 240) = 1.92, p = .38; incremental fit index (IFI) = 1.00; Tucker-Lewis index (TLI) = 1.00; root mean square error of approximation (RMSEA) < .01. All paths except the path between importance of own contributions and attitude towards investment were significant on the .05 alpha level. The model showed that perceived respect resulted in higher identification with the group (both scale and graphical measures), in higher importance of collective goals, and in higher importance of own contributions. Identification with the group (scale and graphical measure) as well as importance of collective goals resulted in a more positive attitude towards investment. Importance of own contributions had only a marginally positive influence on attitude towards investment (p = .06). In addition, perceived respect had a direct positive effect on attitude towards investment (β = .18, p < .01). This standardized regression weight was lower than the standardized regression weight of the model without the mediators (β = .37, p < .01). In addition, the indirect effects from perceived respect over identification (graphical measure) and importance of collective goals were significant, z = 1.97, p < .05 and z = 3.41, p < .01, respectively. The indirect effects over identification (scale measure) and importance of own contributions were marginally significant, z = 1.88, p = .06 and z = 1.84, p = .07, respectively. Thus, the effect of perceived respect was partly mediated by identification with group, importance of collective goals, and importance of own contribution.

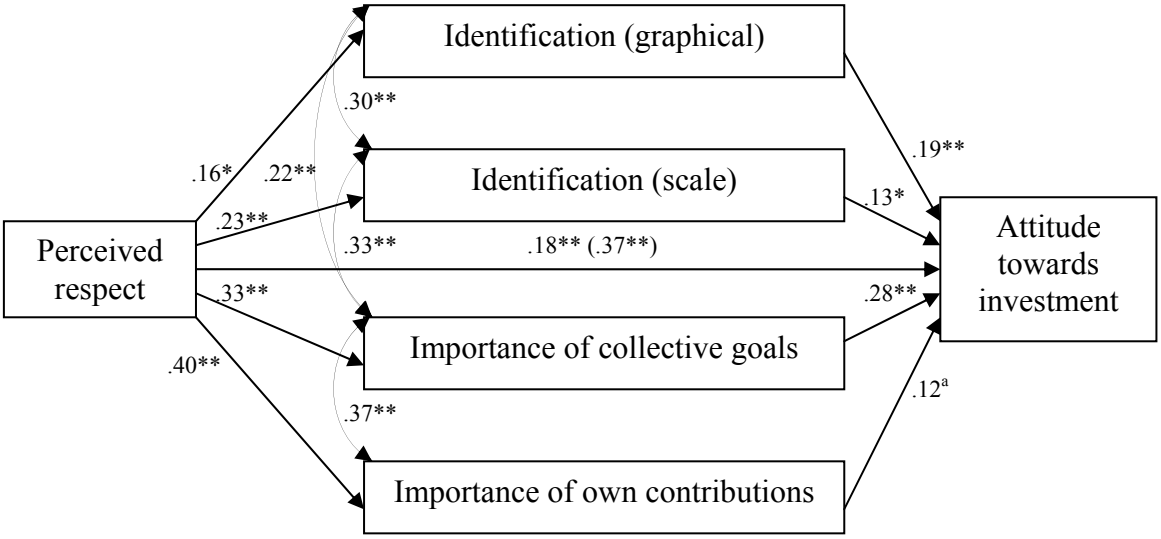


Figure 3-2. Path model for the effect of respect on attitude towards investment and the mediating roles of identification, importance of collective goals, and importance of own contribution

---

Notes.

Measurement errors have been omitted from the figure for simplicity of representation. Standardized regression weights as well as correlations are displayed in the model.

** p < .01 * p < .05 [a] p = .06

Figure 3-3 shows the path model for intention to extra-effort. Again, we allowed for all significant inter-correlations between the mediating variables. The model had also a very good fit, χ^2 (2, N = 240) = 1.92, p = .38; incremental fit index (IFI) = 1.00; Tucker-Lewis index (TLI) = 1.00; root mean square error of approximation (RMSEA) < .01. All paths except for three were significant on the .05 alpha-level. The model showed that perceived respect resulted in higher identification with the group (scale and graphical measure), in higher importance of collective goals, and in higher importance of own contributions. Identification with the group (graphical measure) and importance of collective goals resulted in stronger intention to extra-effort. The scale measure of identification revealed only a marginal significant influence on intention to extra-effort (p = .09). The importance of own contributions had no effect on intention to extra-effort. In this model, perceived respect had no significant direct effect on intention to

extra-effort (β = .10, p = .09). However, in the model without mediators, this standardized regression weight was significant (β = .23, p < .01). The indirect effects from perceived respect over importance of collective goals and over identification (graphical measure) were significant, z = 2.44, p = .02 and z = 1.94, p = .05, respectively, whereas the indirect effects over identification (scale measure) and importance of own contributions failed to reach statistical significance, z = 1.54, p = .12 and z = 0.39, p = .70, respectively. Thus, the effect of perceived respect was mediated by importance of collective goals and identification with group.

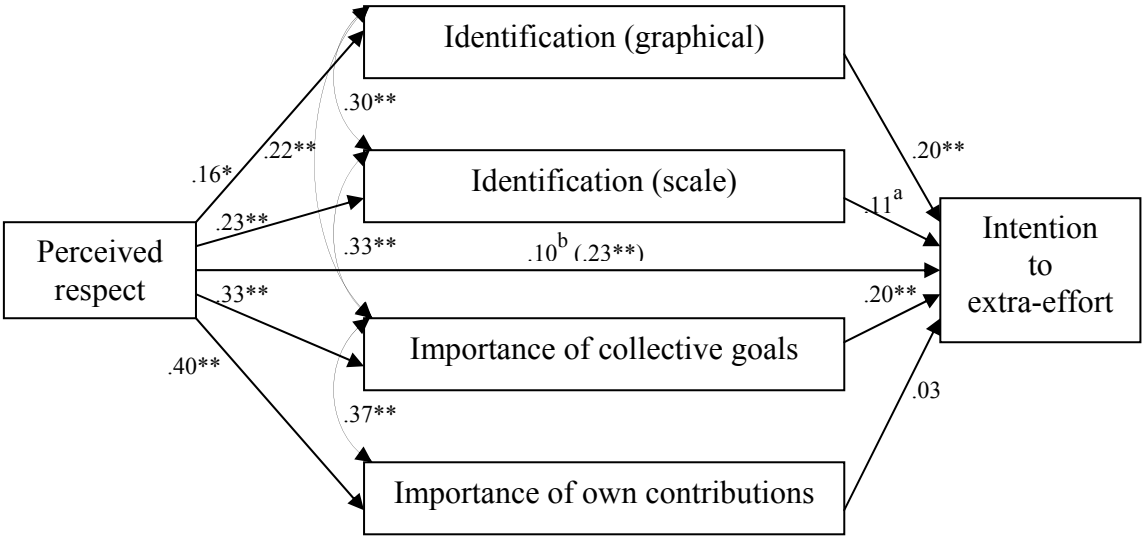


Figure 3-3. Path model for the effect of respect on intentions to extra-effort and the mediating roles of identification, importance of collective goals, and importance of own contribution

---

Notes.

Measurement errors have been omitted from the figure for simplicity of representation. Standardized regression weights as well as correlations are displayed in the model.

** p < .01 * p < .05 [a] p = .09 [b] p = .13

Discussion

The first purpose of Study 2 was to replicate the result of Study 1 that competence-based respect strengthens group-serving behaviour within a group. This replication is important because the effect of competence-based respect on group-serving behaviour in work groups has never been examined before. In order to replicate and generalize the results, we drew a larger and more heterogeneous sample from a different country. Because German is spoken in Germany and Switzerland, the identical manipulation and items could be used in both studies.

Consistent with Study 1, when receiving competence-based respect in comparison to no competence-based respect, participants felt more respected by their fellow group members. In addition, when receiving competence-based respect in comparison to no competence-based respect, participants showed a more positive attitude towards investment and a stronger intention to extra-effort. Thus, our hypothesis was supported and the results of Study 1 were replicated successfully.

The second aim of Study 2 was to show that liking-based respect strengthens group-serving behaviour intention within the group and to compare the effects of both forms of respect. Beside competence, likeability plays an important role in working together. Thus, liking-based respect should be as important as competence-based respect. However, the results of Study 2 indicate that participants who received liking-based respect did not feel more respected than participants who did not receive liking-based respect condition. Nevertheless, participants who received liking-based respect showed a more positive attitude towards investment and a stronger intention to extra-effort than participants who did not receive liking-based respect condition. We think that this might be due to the work setting that participants did not interpret feedback about their likeability as respect. In a work setting, the individual has to be competent and not likeable to complete the task successfully. Therefore, maybe only feedback about one's competence induced feelings of respect. However, feedback about one's likeability implicates a positive relationship with the other group members and a positive work climate. Thus, liking-based respect influenced group-serving behaviour intentions even if it did not trigger feelings of respect in our study.

As an important contextual moderator for the effect of both forms of respect, we proposed the perceived reciprocity of the study context in our scenario. Because of the heterogeneous sample of Study 2 consisted of students with different study majors, the participants perceived different degrees of reciprocity at university. As expected, the

effect of both forms of respect on group-serving behaviour intentions depended on whether the perceived reciprocity was high or low. Both forms of respect did not affect group-serving behaviour intentions of participants who perceived high reciprocity at university. However, both forms of respect enhanced group-serving behaviour intentions of participants who perceived low to moderate reciprocity.

In addition, we examined several mediating processes of the effect of respect on group-serving behaviour intentions. Indeed, we showed that participants who felt respected identified stronger with the group and perceived the collective goals as well as their contribution to the group work as more important. In turn, identification with the group as well as importance of collective goals and of own contributions led to a more positive attitude towards investment, and identification with the group as well as the importance of collective goals led to a stronger intention to extra-effort. Thus, the effect of perceived respect on group-serving behaviour intentions is mediated by the proposed mediators.

General discussion

The presented research aims at contributing to the current discussion of competence-based respect and liking-based respect on group-serving behaviour. So far, only one study has considered competence-based respect and liking-based respect (Spears et al., 2005). Their focus was on emotional reaction, collective self-esteem, and commitment to the group. In our studies, we considered the effects of both forms of respect on group-serving behaviour within a work group. We showed that they enhance group-serving behaviour intentions. Receiving either competence-based respect or liking-based respect resulted in a more positive attitude and a stronger intention to group-serving behaviour compared to the absence of respect. However, our results also revealed that only competence-based respect resulted in feelings of being respected, at least in the described work group context. This effect might be due to the importance of competence for achieving the group goal in a study context. In contrast, likeability is important for the climate of the group work and thus not directly instrumental for achieving the group goal.

It is plausible that competence-based respect and liking-based respect have different meanings in different kinds of groups and, hence, might result in feelings of respect in some groups but not in others. The importance of competence and likeability

could vary depending on the group characteristics or, as mentioned before, depending on the group goal. Within groups of friends, likeability is central whereas competence plays a minor role. Within groups of experts the opposite should be the case. Furthermore, the importance of competence and likeability could vary within common-bond groups versus common-identity groups. In common-bond groups, the interpersonal attraction is central to the group and, thus, likeability of the individual group members should be of great importance. Consequently, liking-based respect should have a key meaning for the individual group member. In common-identity groups, the importance of competence and likeability depends on the kind of common identity. As a result, competence-based respect or either liking-based respect or both could be important for members of common-identity groups. The question in what kinds of groups and under which circumstances competence-based respect and liking-based respect result in feelings of respect needs to be considered in more detail in further studies.

In contrast to former studies, our control groups were not designed to communicate low respect. We decided to contrast the presence of respect with the absence of respect. In both cases, the participants should imagine that they behave in either a competent or a likeable way. However, only under presence of respect the participants received an appreciating reaction from their fellow group members. Under absence of respect, the fellow group members showed no reaction and seemed to take the behaviour as a matter of course. As we have shown, competence-based respect and liking-based respect have a positive influence on group-serving behaviour even in comparison to the absence of respect. This confirms how important respect is. Moreover, recent studies on disrespect showed that disrespect can even have controversial effects (Sleebos, Ellemers, & de Gilder, 2006a, 2006b). Disrespect can result in psychological disengagement from the group and in intention to leave the group. However, it can also promote group-serving behaviour, when it is possible to gain acceptance from fellow group members by doing so. Thus, it would be interesting to investigate the effect of disrespect in our work group situation.

Furthermore, we showed that perceived reciprocity in the work context influences the effects of both forms of respect on group-serving behaviour. Only under low to moderate reciprocity competence-based respect and liking-based respect result in a stronger intention to group-serving behaviour. It seems that high general reciprocity compensates for lack of respect in a certain situation. If a student feels that reciprocal

exchange is the norm in his or her study context, it will not be important to be especially recognized for a certain single act of giving. The student knows that soon he or she will get something back.

In addition, we extended the discussion of possible mediating processes for the effect of respect by introducing two further mediators. In former studies, only identification with the group was discussed to explain the effect of respect on group-serving behaviour. We propose additionally that the perceived importance of both collective goals and own contributions to the group are influenced by the feelings of being respected, and in turn, influence group-serving behaviour. In fact, we showed that perceived respect influences not only the identification with the group but also the importance of collective goals and of own contributions. Furthermore, identification with the group as well as importance of collective goals and own contributions mediate the effect of perceived respect on group-serving behaviour intentions. But we have to be careful with causal interpretation of this result because all variables were measured at the same time. To be able to draw conclusion about causality, further studies with longitudinal design need to be conducted.

An interesting question for further research is how both forms of respect interact in a work context. Spears et al. (2005) showed that high competence-based respect cannot compensate for low liking-based respect. Their scenario described also a study situation at the university, but this situation was not the situation of group work. It was a situation of individual task mastery and the dependent measures dealt with the relationships to fellow students of the whole university (Pilot Study and Study 1). In their second study, Spears et al. (2005) came closer to the work group context. The participants performed a group task, but the manipulation of competence-based respect and liking-based respect had nothing to do with the group task. The group task was only introduced to enhance the meaningfulness of the minimal group. However, the results showed that participants who receive either liking-based respect or competence-based respect or both were highly committed to the group, cognitively and behaviourally. Only participants who received neither form of respect showed a decreased commitment. It would be interesting to consider the interaction of both forms of respect in a group work context and their effect on group-serving behaviour because individual competence is more important for members of a work group than for individual students at the same university.

In our studies, participants were asked to imagine the described work group situation and did not experience it. Because the described situation is a typical situation for university students, we think that our participants were able to put themselves easily into this situation. If they had problems to put themselves into this situation, it would even be harder to find the assumed effects of respect, and therefore it would not dispute our results, but rather strengthen them. As a consequence of the scenario technique, we also considered behaviour intentions and not group-serving behaviour. Following Ajzen and Fishbein (1974) behavioural intentions are important in predicting real behaviour. Nevertheless, it is important to implement further research on really experienced respect as well as on actual group-serving behaviour to confirm our results.

Finally, because our sample consists of student participants, and our scenario describes a study situation, we should be cautious about generalizing the results to other samples or other situations. For example, the situation of employees differs from that of university students: Competition is more prevalent in a work setting than at the university. University students experience few situations in which they compete directly with other students. To be seen as competent could have different effects in a competitive context than in a cooperative context. In a competitive context, the individual competence can be used to achieve individual goals and to outperform the other group members. For further studies, it would therefore be interesting to work with scenarios with work situations and employees as participants or to investigate the effects of competence-based respect and liking-based respect in a field study in the work context.

To conclude, groups serve as important sources of self-evaluation and self-validation (Karau & Williams, 2001; Tyler, 1994). However, group members do not only need to be treated fairly to feel respected within the group. To feel respected, they also need feedback about the perceptions of their competence and likeability by the other group members. Especially in work groups, to be seen as competent and likeable means that the individual group member is an essential part of the group and that his or her contributions to the group work are recognised. Thus both, competence-based respect and liking-based respect are associated with important information for the group member about his or her standing in the group. Therefore, competence-based respect and liking-based respect should be considered along with treatment-based respect when studying group-serving behaviour.

References

Aiken, I. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interaction*. Newbury Park, CA: Sage.

Ajzen, I. & Fishbein, M. (1974). Factors influencing intentions and the intention-behavior relation. *Human Relations, 27*(1), 1-15.

Ashforth, B. E., & Mael, F. (1989). Social identity and the organization. *Academy of Management Review, 14*, 20-39.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497-529.

Branscombe, N. R., Spears, R., Ellemers, N., & Doosje, B. (2002). Intragroup and intergroup evaluation effects on group behavior. *Personality and Social Psychology Bulletin, 28*(6), 744-753.

Brown, R. (2000). Social identity theory: Past achievements, current problems and future challenges. *European Journal of Social Psychology, 30*, 745-778.

Cohen, J. (1988). *Statistical power analysis for the behavioral science* (2nd ed.). Hillsdale, New Jersey: Lawrence Erlbaum.

De Cremer, D. (2002). Respect and cooperation in social dilemmas: The importance of feeling included. *Personality and Social Psychology Bulletin, 28*(10), 1335-1341.

De Cremer, D. (2003). Noneconomic motives predicting cooperation in public good dilemmas: The effect of received respect on contributions. *Social Justice Research, 16*(4), 367-377.

De Cremer, D., & Tyler, T. R. (2005). Am I respected or not?: Inclusion and reputation as issues in group membership. *Social Justice Research, 18*(2), 121-153.

Ellemers, N., Doosje, B., & Spears, R. (2004). Sources of respect: The effects of being liked by ingroups and outgroups. *European Journal of Social Psychology, 34*, 155-172.

Ellemers, N., Kortekaas, P., & Ouwerkerk, J. W. (1999). Self-categorisation, commitment to the group and group self-esteem as related but distinct aspects of social identity. *European Journal of Social Psychology, 29*, 371-389.

Gaertner, L., Iuzzini, J., Guerrero Wit, M., & Oriña, M. M. (2006). Us without them: Evidence for an intragroup origin of positive in-group regard. *Journal of Personality and Social Psychology, 90*(3), 426-439.

Hertel, G., Niedner, S., & Herrmann, S. (2003). Motivation of software developers in open source projects: An internet-based survey of contributors to the Linux kernel. *Research Policy, 32*, 1159-1177.

Karau, S. J., & Williams, K. D. (2001). Understanding individual motivation in groups: The collective effort model. In M. E. Turner (Ed.), *Groups at work. Theory and research* (pp. 113-141). Mahwah, NJ: Erlbaum.

Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence*. New York: Wiley.

Moser, K. S. (2002). Wissenskooperation: Die Grundlage der Wissensmanagement-Praxis. In W. Lüthy, E. Voit & T. Wehner (Eds.), *Wissensmanagement - Praxis: Einführung, Handlungsfelder und Fallbeispiele* (pp. 97-113). Zürich: vdf Hochschulverlag.

Rusbult, C., & Van Lange, P. (1996). Interdependence processes. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology* (pp. 564–596). New York: Guilford.

Schubert, T. W., & Otten, S. (2002). Overlap of self, ingroup, and outgroup: Pictorial measures of self-categorization. *Self and Identity, 1*(4), 353-376.

Simon, B., & Stürmer, S. (2003). Respect for group members: Intragroup determinants of collective identification and group-serving behavior. *Personality and Social Psychology Bulletin, 29*(2), 183-193.

Simon, B., & Stürmer, S. (2005). In search of the active ingredient of respect: A closer look at the role of acceptance. *European Journal of Social Psychology, 35*, 809-818.

Sleebos, E., Ellemers, N., & de Gilder, D. (2006a). The paradox of the disrespected: Disrespected group members' engagement in group-serving efforts. *Journal of Experimental Social Psychology, 42*, 413-427.

Sleebos, E., Ellemers, N., & de Gilder, D. (2006b). The carrot and the stick: Affective commitment and acceptance anxiety as motives for discretionary group efforts by respected and disrespected group members. *Personality and Social Psychology Bulletin, 32*(2), 244-255.

Smith, H. J., & Tyler, T. R. (1997). Choosing the right pond: The impact of group membership on self-esteem and group-oriented behavior. *Journal of Experimental Social Psychology, 33*, 146-170.

Spears, R., Ellemers, N., & Doosje, B. (2005). Let me count the ways in which I respect thee: Does competence compensate or compromise lack of liking from the group? *European Journal of Social Psychology, 35*, 263-279.

Tajfel, H. (Ed.). (1978*). Differentiation between social groups. Studies in the social psychology of intergroup relations*. London: Academic Press.

Tajfel, H., & Turner, J. (1979). An integrative theory of intergroup conflict. In W. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks/Cole.

Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. Austin (Eds.), *Psychology of intergroup relations* (pp. 7-24). Chicago: Nelson-Hall.

Thibaut, J., & Kelley, H. H. (1959). *The social psychology of groups*. New York: Wiley.

Tyler, T. R. (1994). Psychological models of the justice motive: Antecedents of distributive and procedural justice. *Journal of Personality and Social Psychology, 67*(5), 850-863.

Tyler, T. R., & Blader, S. L. (2001). Identity and cooperative behavior in groups. *Group Processes and Intergroup Relations, 4*(3), 207-226.

Tyler, T. R., & Blader, S. L. (2003). The group engagement model: Procedural justice, social identity, and cooperative behavior. *Personality and Social Psychology Review, 7*(4), 349-361.

van Knippenberg, D. (2000). Work motivation and performance: A social identity perspective. *Applied Psychology: An International Review, 49*(3), 357-371.

Wojciszke, B. (2005). Affective concomitants of information on morality and competence. *European Psychologist, 10*(1), 60-70.

Chapter 4

The success of shared databases: Can respect improve information sharing?[5]

Katrin Wodzicki

Abstract: Today nearly every business company establishes collaboration technologies to facilitate information sharing among its employees. However, the employee has to invest time and effort to contribute useful information, whereas access and use of contributed information is largely comfortable. Thus, this situation constitutes a dilemma between individual and collective interests: The individual employees are better off when they do not contribute own information and focus on already contributed information, whereas the collective benefits from the establishment of nearly complete information sharing. I expected that receiving respect from fellow group members motivates the individual to contribute more information. More specifically, I considered the effect of competence-based respect and liking-based respect on contributions to a shared database in a computer-based task that simulates the described organizational context. In Study 1, the manipulation of neither form of respect was successful. Thus, the manipulation was revised for Study 2. Study 2 revealed rather small, non-significant effects of both forms of respect. The complexity of the task is discussed as cause of the results.

Keywords: competence-based respect, liking-based respect, group-serving behaviour, information sharing

---

[5] The studies presented here were supported by the Research Fund of the University of Zurich (Project no. 56232101) granted to Dr. Karin S. Moser.

Imagine, in a customer service department, a database has been established to share information about frequently asked customer questions and appropriate answers. However, the head of the department realised that the technical establishment was not enough. In the beginning, only a few customer consultants had contributed their experiences with frequently asked questions and appropriate answers to the database. Later on, these few consultants realised that no one else contributed and stopped contributing to the database. Therefore, the successful establishment of the database failed. The head of the department wondered about what went wrong. He thought the benefit of the database for the work of the consultants was very clear.

This situation can be explained by considering the individual consultant's point of view. For the individual customer consultant, the investment in information sharing is certainly time consuming and therefore, costly. In addition, the consultant perhaps loses power when he or she shares his or her specific individual expertise. Nevertheless, using information from the database can easily improve individual performance. In addition, the use is independent of individual contribution because the database is openly accessible. Thus, it is rational that the individual consultant uses the shared database but does not contribute to it. But if nobody contributes, no information will be provided at all. For the department, it is important to implement a nearly complete sharing of information. Only then, helpful information is collected and provided and, consequently, the work of every customer consultant can be improved. Thus, there is a dilemma between individual and collective interests.

This dilemma can be solved when the individual sharing behaviour has a positive cost-benefit ratio for the individual consultant, which means that the benefits of information sharing clearly overweigh its costs, or when the department and its collective interests become more important for the individual consultant, which means that the collective point of view is stressed. The present paper focuses on the second solution and examines the effect of respect from fellow group members, and how it contributes to solve this dilemma.

Imagine for example, Maria, an experienced customer consultant, contributes as much information as possible to improve the customer service in her department. In addition, her colleagues experience her as constantly approachable for their requests. On a departmental meeting, her colleagues chime in to thank her for her engagement and stress her competence in customer consultancy. Maria feels respected by her colleagues

and continues her efforts for the department. But what if her colleagues do not appreciate what Maria does? Would she continue to contribute?

As members of groups, people need to be respected by fellow group members (Branscombe, Spears, Ellemers, & Doosje, 2002; Ellemers, Doosje, & Spears, 2004). Respect from fellow group members communicates that one is accepted and included within the group. Thus, respect has positive effects on people's self-esteem. Furthermore, respect promotes group-serving behaviour (e.g., Branscombe et al., 2002). Information sharing is a kind of group-serving behaviour. Thus, it is plausible to expect that receiving respect enhances sharing behaviour in contexts like the above mentioned and that this effect can be explained by a stronger identification with the group, a stronger importance of collective goals and a stronger importance of own contributions. Based on the literature on respect (Spears Ellemers, & Doosje, 2005), I differentiate between two forms of respect: Competence-based respect and liking-based respect.

Given the importance of information sharing today and of receiving respect for the individual, surprisingly few experimental studies on information sharing dilemmas (e.g., Cress, 2005) as well as on competence-based respect and liking-based respect (e.g., Spears et al., 2005) exist so far. To the best of my knowledge, no studies considered these two forms of respect in the context of an information sharing dilemma. The current paper presents two experimental studies which examine the effect of competence-based respect and liking-based respect on information sharing in a computer-based task paradigm.

Theoretical background

Several authors have described information sharing as a probabilistic public goods dilemma (e.g., Bonacich & Schneider, 1992; Connolly, Thorn, & Heminger, 1992). The goal of information sharing (e.g., in customer service departments) is to collect all relevant information from all participating people (e.g., from customer consultants) and to make it accessible for all participating people (e.g., in a shared database). Thus, a public good is built. Thereby, the work process of every participant (e.g., the customer consultancy) can be improved because the whole group of participants knows more than the individual. However, this collective interest conflicts with the individual interests: The individual wants to improve his or her work process by using the shared database which is independent of own contributions. Contributing

information to a shared database requires time and effort and, thus, it is most rational for the individual to use the shared database while not contributing to it. However, if all individuals decide to contribute nothing to the shared database, no information will be provided at all. In this case, no one benefits. The described dilemma is probabilistic because every participant benefits only with a certain probability: The benefit and meaning of information vary to a great degree (e.g., an appropriate answer for a very often asked customer question is more helpful than an appropriate answer for a very seldom asked customer question) and, thus, receiving information and providing another must not be compensational.

Cabrera and Cabrera (2002) discussed factors to solve the dilemma and, among others, suggested that the relationship between individual and group is a key factor for cooperative behaviour in information sharing dilemmas. If the individual has a positive relationship with the group, he or she will likely identify with this group. In turn, he or she performs more group-serving behaviour (e.g., Tajfel & Turner, 1986; van Knippenberg, 2000). But how can the relationship between individual and group be strengthened?

As the group-engagement model (Tyler & Blader, 2003) points out, receiving respect from fellow group members is important for strengthening the relationship between individual and group. The group-engagement model was originally based on procedural justice research and studies about treatment-based respect. The model outlines that the experience of procedural justice enhances feelings of respect. In addition, resources the individual group member receives from the group cause feelings of respect. In other words, a group member will feel respected, if he or she is treated fairly by fellow group members and if he or she gets what he or she thinks to deserve. The model further proposes that a group member who feels respected more strongly identifies with the group. Furthermore, a group member who more strongly identifies with the group in turn shows more group-serving behaviour. This is called the social identity mediation hypothesis. The social identity mediation hypothesis was supported in some previous studies (De Cremer, 2002, 2003; Simon & Stürmer, 2003, 2005). As proposed, group members who were respected by their fellow group members showed more group-serving behaviour, and this effect could be explained by their higher identification with the group.

Previous research has mainly concentrated on the procedural justice component and has examined the so-called treatment-based respect. Treatment-based respect is

communicated through the way someone is treated by the group. Research has considered the treatment by group authorities as well as by fellow group members with an equal status. Many experimental and fields studies showed the positive effect of treatment-based respect on emotions, self-worth, and group-serving behaviour (e.g., De Cremer & Tyler, 2005; Smith & Tyler, 1997; Tyler & Blader, 2001). For example, Tyler and Blader (2001) found in a field study that treatment-based respect enhanced extra-role and in-role behaviour.

In contrast to the procedural justice component, the resource component of respect has not received much attention. One important resource that individuals can obtain from fellow group members is self-evaluation and self-knowledge (Karau & Williams, 2001; Simon & Trötschel, in press). Two important areas of self-perception (and other-perception, respectively) are likeability and competence (for a review: Wojciszke, 2005). That means, it is important for individuals to know whether other people perceive them as likeable and competent or not. Most directly, individuals gain knowledge about themselves by a verbal statement about their likeability and their competence articulated by other people. Throughout this paper, the verbally communicated positive evaluation of a person's competence is defined as competence-based respect. Likewise, the verbally communicated positive evaluation of a person's likeability is defined as liking-based respect. Some previous experimental studies showed the positive effects of liking-based respect and competence-based respect on emotional reaction, collective self-esteem, commitment to the group, and group-serving behaviour (Branscombe et al., 2002; Ellemers et al., 2004; Simon & Stürmer, 2005; Spears et al., 2005) and, thereby, showed that these forms of respect are as important as treatment-based respect within a group context.

But which processes mediate the effect of competence-based respect and liking-based respect on information sharing? Following the social identity mediation hypothesis, group members who receive respect from fellow group members identify stronger with the group and, in turn, show more group-serving behaviour. Albeit the social identity mediation hypothesis was only supported for treatment-based respect, the hypothesis should also apply to the effects of competence-based respect and liking-based respect: Group members who receive either competence-based respect or liking-based respect should identify stronger with the group and, in turn, show more group-serving behaviour.

Besides, two further mediating processes could be important. As mentioned before, both competence-based respect and liking-based respect are crucial for self-evaluation and self-knowledge (Karau & Williams, 2001; Simon & Trötschel, in press). In particular, positive information about one's competence and likeability from fellow group members indicates that the relationship with the group is intact. In turn, this intact relationship entails obligations to the group (Simon & Stürmer, 2005). Consequently, group members who receive either competence-based respect or liking-based respect should perceive their contributions to the group as more important. In addition, group members who receive either competence-based respect or liking-based respect should perceive collective goals as more important. As pointed out in the collective effort model (Karau & Williams, 2001), people who perceive their own contribution as important are more motivated to engage in collective tasks. The same is true for people who perceive collective goals as important.

In sum, both forms of respect should result in more group-serving behaviour, and identification with the group and perceived importance of own contributions as well as of collective goals should mediate the effect of perceived respect on group-serving behaviour.

Aim of the current studies

Within the current studies, I examined the effect of competence-based respect and liking-based respect on information sharing. To my knowledge, no study considered competence-based respect and liking-based respect in this context. I expected that group members who receive either competence-based respect or liking-based respect from fellow group members share more information with the group than group members who receive no respect.

Furthermore, I examined whether group members who receive either competence-based respect or liking-based respect from fellow group members identify stronger with the group and perceive collective goals and own contributions as more important. Identification was confirmed as main mediator in previous studies on treatment-based respect. I expected that group members who receive either competence-based respect or liking-based respect identify stronger with the group and, in turn, share more information with their fellow group members. Additionally, I expected that group members who receive either competence-based respect or liking-based respect perceive

their own contribution and collective goals more important and, in turn, share more information with their fellow group members.

Study 1

In the first study, I examined the effect of competence-based respect and liking-based respect on information sharing in a computer-based task paradigm. The goals of the study were at first to implement a successful manipulation of competence-based respect and of liking-based respect within a computer-based task paradigm and secondly to confirm the expected enhancement of information sharing through both forms of respect, which should be mediated by identification with the group as well as importance of own contributions and collective goals.

Method

Participants

Fifty-one undergraduate and graduate students of the University of Zurich participated in Study 1 (33 women, 17 men, 1 missing value; Age: M = 26.00, SD = 7.44), mainly studying psychology (86.3 %). On average, they had been studying for 3.88 semesters (SD = 2.09, range 1 to 10 semesters). Participants received credit points for compensation or took part in a lottery.

Design

To implement the information sharing dilemma, the following computer-based task paradigm was used: The participants were asked to imagine that they were customer consultants in a hotel association. Their task was to answer a series of customer inquiries. The inquiries included two kinds of information about the arrangement that the customers were looking for. The first kind of information consisted of the number of adults and children, the kind of room and board, and the number of nights they wanted to stay. Based on this information, the participants had to compute a price. The second kind of information consisted of the leisure facilities that the customers wanted to undertake during their stay. Based on this information, the participants had to find the right hotel for the customers.

In addition, participants were asked to imagine that the hotel association had installed a shared database to enable the exchange among the locally distributed consultants. The advantages and disadvantages of such shared databases were outlined

to emphasise the dilemma perception. During the processing of the customer inquiries, participants received a fixed amount of information about prices and hotels from the shared database, namely 50 percent of the necessary information. For each inquiry, either the price information or the hotel information was accessible for the participants. This information could be entered directly to the customer inquiry. If price or hotel information was not accessible in the shared database, participants had to compute the price or had to find the right hotel to enter it to the customer inquiry. Therefore, they had a booklet with the necessary information. Afterwards, participants could voluntarily contribute the computed price information or the searched hotel information to the shared database. To contribute information in conjunction with the particular customer inquiry and to establish the costs of the contributions, participants had to enter specific codes: either for the price or for the hotel.

To implement the respect manipulation, practising the task was introduced as a phase of vocational adjustment and supervisor feedback was given afterwards. This feedback included information on how the colleagues of the consultant perceived him or her. In one condition, the supervisor said that the colleagues perceived him or her to be an experienced customer consultant and appreciated his or her competencies (*competence-based respect condition*), in the other condition, he said that the colleagues perceived him or her to be a nice colleague and appreciate his or her likeability (*liking-based respect condition*), or he said nothing about the participants' perception by the other colleagues (*control condition*).

Procedure

Participants took part in groups of 1 to 8 at one time and were randomly assigned to one of the three experimental conditions, with 17 participants in each condition. In the beginning, the experimenter introduced the procedure of the experiment and explained the participants' role. Then, participants proceeded with reading the computer-based instructions. First, participants read about the hotel association, their role, and the database. Second, they were introduced to the task and could practise it during three practice trials. Third, the manipulation of respect took place. Forth, the participants had to answer eight customer inquiries. Here, the dependent measure, the information sharing behaviour, was assessed. Fifth, the participants completed a questionnaire which included measures for the manipulation check, the expected mediators (identification with the group, importance of collective goals, importance of own contributions), the control variables (relative importance of

likeability and competence, ease of putting oneself in the role of the consultant, comprehension of the user interface, ease of handling the coding, difficulty of price computing, difficulty of hotel search, perception of time pressure), and demographic information. Afterwards, they were debriefed and thanked.

Measures

Manipulation check. To check the efficacy of the respect manipulation, participants had to rate two statements on how the other group members perceive their competence and their likeability, respectively ("The other team members perceived me to be very competent."; "The other team members perceived me to be very likeable."; statements were rated on a 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*).

Contributions to the database. While answering the eight customer inquiries, participants received half of the necessary information to complete the task. The participants could use this information for answering the inquiries. In addition, participants had to compute four prices and to search four hotels to complete the task. Participants could voluntarily contribute this information to the shared database by entering the respective codes. This sharing behaviour constituted the dependent measure. To illustrate the results, the proportion of contributions made to possible contributions was computed and included in the analyses. Two separate scores were computed for price and hotel.

Mediators. Identification with the work group was assessed by means of two different measures: First, a scale consisting of three items following Ellemers, Kortekaas, and Ouwerkerk (1999; e.g., "I would like to continue working with this group."; 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*; α = .87); second, a graphical measure consisting of seven figures from which participants were asked to choose one (following Schubert & Otten, 2002).

The importance of collective goals was measured with three items (e.g., "It is very important for me that all group members receive a very good mark."; α = .73). Similarly, the importance of subjects' own contribution was measured with three items following Hertel, Niedner, and Herrmann (2003; e.g., „ I believe that my own contribution is really important for the performance of all group members."; α = .81). Both were measured on a 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*.

Control variables. Because the manipulation took place after the practice trial, it was important to control for sharing behaviour in the practice trial. Thus, the proportion of contributions made to possible contributions during the practice trial were separately computed for price and hotel.

Another relevant control variable is relative importance of likeability and competence ("What is more important to you: That the other team members believe you are competent or that they believe you are likeable?"; 1 = *competent*, 2 = *likeable*, 3 = *both equally important*).

Furthermore, the task that was used for the study is complex: Whether participants share information not only depends on the implemented manipulation, but also on how participants perceive different aspects of the task (e.g., handling of the coding). Thus, to find effects of the manipulation, these perceptions had to be taken into account. First, it was measured how well participants put themselves in the role of the consultant (on a 6-point scale ranging from 1 = *very bad* to 6 = *very good*). Further control questions referred to the perception of the task and assessed the comprehension of the user interface, the ease of handling the coding (both on a 6-point-scale ranging from 1 = *very bad* to 6 = *very good*), difficulty of price computing and hotel search (both on a 5-point scale ranging from 1 = *very easy* to 5 = *very difficult*), and experienced time pressure (on a 5-point scale ranging from 1 = *very low* to 5 = *very high*).

Results

Manipulation check

In order to check for perception of the respect manipulation, a multivariate analysis of variance (MANOVA) with the two manipulation check items was performed. Overall, participants in the three conditions did not differentiate on the two manipulation check items. The multivariate test revealed a non-significant effect (Wilks' $\lambda = .96$, $F(4, 92) = .45$, $p = .78$, $\eta^2 = .02$). Contrary to the hypothesis, participants in the competence-based respect condition did not feel being perceived more competent by the other team members ($M_{\text{comp respect}} = 4.50$, $SD_{\text{comp respect}} = .82$) than participants in the liking-based respect condition ($M_{\text{like respect}} = 4.29$, $SD_{\text{like respect}} = 1.11$) or than participants in control condition ($M_{\text{control}} = 4.12$, $SD_{\text{control}} = .86$), $F(2, 47) = .69$, $p = .51$. In addition, participants in the liking-based respect condition did not feel being perceived more likeable by the other team members

($M_{\text{like respect}}$ = 4.35, $SD_{\text{like respect}}$ = 1.06) than participants in the competence-based respect condition ($M_{\text{comp respect}}$ = 4.44, $SD_{\text{comp respect}}$ = .51) or than participants in the control condition (M_{control} = 4.12, SD_{control} = .78), $F(2, 47) = .68$, $p = .51$. The results indicated that the manipulation check of competence-based respect and liking-based respect was not successful. Nevertheless, I considered the differences between the conditions concerning the contributions to the shared database.

Main analysis

I expected that information sharing behaviour is influenced by the ability to put oneself in the role of the consultant and by the perception of the task (ease of handling the coding, difficulty of price computing, difficulty of hotel search, time pressure). Additionally, I expected that the effect of the manipulation is influenced by the relative importance of competence and likeability for the participants. Furthermore, I had to control for contribution behaviour during the practice trials. To take into account these additional influences on information sharing behaviour, I performed a multivariate analysis of covariance (MANCOVA) in which the above mentioned variables were included as covariates. However, the multivariate test revealed a non-significant effect, Wilks' $\lambda = .93$, $F(4, 74) = .64$, $p = .64$, $\eta^2 = .03$. Neither the contributions of price information nor the contributions of hotel information differed between the three experimental conditions, for hotel information $F(2, 38) = .90$, $p = .42$, $\eta^2 = .05$, and for price information $F(2, 38) = .23$, $p = .80$, $\eta^2 = .01$, respectively (see Table 4-1). In addition, only one covariate showed a significant effect, namely the comprehension of the user interface, Wilks' $\lambda = .79$, $F(2, 37) = 4.83$, $p = .01$, $\eta^2 = .21$.

Table 4-1

Adjusted means of contributions to the shared database with controls as covariates

	Contributions of			
	Hotel codes		Price codes	
	M	*SE*	*M*	*SE*
Competence-based respect[b]	.78	.10	.76	.08
Liking-based respect[a]	.64	.10	.69	.08
Control[b]	.59	.10	.75	.09

Notes. [a] $N = 16$ [b] $N = 17$

Mediation analyses

The manipulation did not succeed and the expected main effects did not reach statistical significance. Thus, the intended mediation analyses could not be performed.

Discussion

Participants who received either competence-based respect, liking-based respect or no respect from their fellow team members neither perceive a different amount of competence-based respect nor a different amount of liking-based respect. In addition, participants who received either competence-based respect, liking-based respect or no respect from their fellow team members did not share different amounts of information with their fellow team members.

Because the manipulation of competence-based respect and liking-based respect was geared to the existing manipulation (see Spears et al., 2005), discussing why the manipulation of respect failed to result in the perception of respect is important. First, it could be that the manipulation was not sufficiently striking and prominent to result in perceived respect. Second, it is possible that the manipulation check items did not assess the intended manipulation. The comparison of the manipulation and the manipulation check items allows for the conclusion that the manipulation check items could not capture the given manipulation. A more specific assessment of the manipulation perception would be the following item: “The team leader told me at the beginning that the other team members perceived me to be a very competent consultant (a very likeable colleague)”.

To reinforce the perception of competence-based respect and liking-based respect and to more specifically capture this manipulation, the manipulation itself and the manipulation check items had to be revised. A revised manipulation ought to be more elaborate to attract the attention of the participants. The description of a concrete situation and a concrete behaviour should be the basis for the respect manipulation. For the competence-based respect condition, a competent behaviour of the participant should be described that is appreciated by fellow team members. Similarly, for the liking-based respect condition, a likeable behaviour of the participant should be described that is appreciated by fellow team members. In addition, the manipulation can be reinforced when this positive reaction of the fellow team members is contrasted with a negative reaction of the fellow team members.

Following these considerations, the non-significant results of Study 1 regarding the contributions are difficult to interpret. On the one hand, it could be that the hypothesis that group members who receive either competence-based respect or liking-based respect share more information with their fellow group members was not supported. On the other hand, because of the failed manipulation check it could be that the manipulation of competence-based respect and liking-based respect was not successful and, thus, the predicted differences did not appear. Thus, improving the manipulation as well as the manipulation check items within a second study should enable us to decide on these two interpretations and, if applicable, to consider the proposed mediating processes.

Study 2

The aim of Study 2 was to improve the manipulation of competence-based respect and liking-based respect as well as the manipulation check items in order to respond to the problems of Study 1. To implement a more elaborate manipulation, four experimental conditions were realised. For liking-based respect, a likeable behaviour of the participants and the positive or rather negative reaction to it by fellow group members were described. For competence-based respect, a competent behaviour of the participants and the positive or rather negative reaction to it by fellow group members were described. Furthermore, the list of control variables was extended.

Method

Participants

In Study 2, 120 undergraduate and graduate students of the University of Zurich participated (95 women, 24 men, 1 missing value; Age: M = 25.62, SD = 8.23), mainly studying psychology (91.7 %). On average, they had been studying for 1.59 semesters (SD = 1.86, range from 0 to 12 semesters).[6] Participants received credit points for compensation.

[6] Some participants had recognized the aim of the study or had given other problematic comments. After exclusion of these participants, the sample was reduced to 93 participants (76 women, 16 men, 1 missing value; Age: M = 25.49, SD = 8.50; 92 % psychology students; semesters: M = 1.60, SD = 1.95, range from 0 to 12 semesters).

Design

The same computer-based task paradigm as in Study 1 was used. Again, participants were asked to imagine that they were customer consultants in a hotel association and had to answer a series of customer inquiries. As in Study 1, the participants additionally had to imagine that the hotel association had installed a shared database to enable the exchange among the locally distributed consultants. Half of the information necessary for task completion was accessible in the shared database. To complete the task, participants had to compute unavailable prices and had to search for unavailable hotels. In addition, participants could voluntarily contribute this unavailable information to the shared database by entering respective price codes or hotel codes.

The manipulation of respect again was implemented after the practice trial. To establish a basis for the respect manipulation, participants were asked to imagine the following situation: Recently, all consultants of the hotel association took part in a professional training workshop lasting two days. Goal of the workshop was to enhance customer satisfaction. Among other things, a group discussion about the improvement of customer services was arranged.

In the *competence-based respect condition*, participants were asked to imagine that they actively participated in the discussion by utilising their experiences and their specialised knowledge, and that their colleagues noted their contributions as innovative and competent during the assessment of the proposals. In the *no competence-based respect condition*, participants again were asked to imagine that they actively participated in the discussion by utilising their experiences and their specialised knowledge; however, in this condition, they were also asked to imagine that their colleagues noted their contributions as uninspired and less competent during the assessment of the proposals.

In the *liking-based respect condition*, participants were asked to imagine that they were very cooperative and likeable during the discussion, and that their colleagues noted their behaviour as open-minded and likeable during the assessment of the discussion process. In the *no liking-based respect condition*, participants again were asked to imagine that they were very cooperative and likeable during the discussion; however, in this condition they were also asked to imagine that their colleagues noted their cooperative behaviour as obtrusive and less likeable during the assessment of the discussion process.

Procedure

As in Study 1, participants took part in groups of 1 to 8 at one time and were randomly assigned to one of the four experimental conditions, with 30 participants in each condition. The following sequence was also the same as in Study 1: In the beginning, the experimenter introduced the procedure of the experiment and explained the role of the participants. Then, participants proceeded with reading the computer-based instructions. First, participants read about the hotel association, their role, and the database. Second, they were introduced to the task and could practise it in three practice trials. Third, the manipulation of respect took place. Forth, participants had to answer eight customer inquiries. Meanwhile, the dependent measure, the information sharing behaviour, was accessed. Fifth and last, participants completed a questionnaire which included measures of the manipulation check, the expected mediators (identification with the group, importance of collective goals, importance of own contributions), control variables (relative importance of likeability and competence, perceived appreciation, perception of the other team members, perception of the feedback, ease of putting oneself in the role of the consultant, comprehension of the user interface, ease of handling the price coding, ease of handling the hotel coding, difficulty of price computing, difficulty of hotel search, importance of price information, importance of hotel information, perception of time pressure, perception of competition, importance of good performance), and demographic information. Afterwards, they were debriefed and thanked.

Measures

Manipulation check. The perception of competence-based respect was assessed by a scale consisting of four items ("The other team members have perceived my contributions during the group discussion as competent [innovative, less competent, uninspired]."; 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*; α = .91). The perception of liking-based respect was also assessed by a scale consisting of four items ("The other team members have perceived my behaviour during the group discussion as likeable [open-minded, less likeable, obtrusive]."; 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*; α = .90).

Contributions to the database. Again, the proportion of contributions made to possible contributions during task completion represented the information sharing behaviour, and separate scores were computed for contributed price information and contributed hotel information.

Mediators. As in Study 1, identification with the work group was assessed with two different measures: First, a scale consisting of three items following Ellemers, Kortekaas, and Ouwerkerk (1999; 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*; α = .87); second, a graphical measure consisting of seven figures from which participants were asked to choose one (following Schubert & Otten, 2002).

The importance of collective goals again was measured with three items (α = .85). Similarly, the importance of subjects' own contribution was measured with three items following Hertel, Niedner, and Herrmann (2003; α = .67). Both concepts were measured on a 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*.

Control variables. Again, several control variables were included in the measurements. As in Study 1, the following variables were assessed: sharing behaviour during the practice trial, the ability to put oneself in the role of the consultant, comprehension of the user interface, difficulty of price computing, difficulty of hotel search, and experienced time pressure (see Study 1).

Compared to Study 1, two revisions were made. First, participants' relative importance of likeability and competence again was assessed with the question "What is more important to you: That the other team members believe you are competent or that they believe you are likeable?", but the scale was revised to capture the variance on that scale more appropriately, and hence ranged from 1 = *competent* to 5 = *likeable*.

Second, in contrast to Study 1, two separate questions were included in order to capture the differences in handling of the price coding and the hotel coding (both on a 6-point-scale ranging from 1 = *very bad* to 6 = *very good*). The five items concerning the handling of the task were combined to a single scale (difficulty of price computing and of hotel search, handling of the price coding and the hotel coding, comprehension of the user interface; α = .72).

Due to scientific discussions about the results of Study 1, I included some additional control variables. To control for a habitual expectation of being appreciated for competent contributions or likeable behaviour, four items were included and combined into one scale ("The other team members appreciate if I utilise my competencies [if I support them with my specialised knowledge, if I am likeable and cooperative, if I am accessible for requests]."; on a 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*; α = .77).

In addition, the perception of the other team members was assessed by two items ("The other team members are very competent [very likeable].") and the perception of the feedback was measured with four items ("The feedback of the other team members was justified [has annoyed me, has pleased me].; "I am not interested in what the other team members think about me."; all items were assessed on a 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*).

Furthermore, discussions with previous participants had shown that the information about prices was perceived more important than information about hotels. To capture this difference, two additional items assessed the importance of price information and of hotel information, respectively (6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*).

Because the perception of competition among the team members should also cause information sharing, one item was included into the questionnaire to assess this perception ("The team members compete with one another."; 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*).

Moreover, information sharing should be influenced by the importance of a good performance. To control for this achievement motivation, a scale consisting of three items was included ("It is important to me to achieve a high performance (to avoid errors, to work fast)."; 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree;* $\alpha = .59$).

Results

Exclusion of participants

First of all, three independent raters reviewed the commentaries on the study goal as well as further commentaries on the study in general. They independently detected the same ten participants whose comments were close to the goal of the study. In addition, they detected further problematic statements of participants (as an example one participant reported that he or she ignored the information given about the group discussion at the beginning). I decided to exclude all of these participants from the analyses. Furthermore, participants with missing values in the considered measures were excluded. All in all, 27 participants had to be excluded (see Table 4-2) and, thus, 93 participants remained for the following analyses. As can be seen in Table 2, the exclusion of participants was unequal across the conditions: More participants were

excluded in the no competence-based respect condition and in the no liking-based respect condition.

Manipulation check

To check for the perception of the respect manipulation, a MANOVA with perception of competence-based respect and liking-based respect was performed. Multivariate testing revealed a significant effect (Wilks' $\lambda = .28$, $F(6, 176) = 25.78$, $p < .01$, $\eta^2 = .47$). Overall, participants in the four conditions differed in their perception of competence-based respect, $F(3, 89) = 38.54$, $p < .01$, $\eta^2 = .57$. As intended by the manipulation, participants in the competence-based respect condition perceived a stronger competence-based respect ($M_{\text{comp respect}} = 4.87$, $SD_{\text{comp respect}} = .77$) than participants in the no competence-based respect condition ($M_{\text{no comp respect}} = 2.72$, $SD_{\text{no comp respect}} = .84$). Additionally, participants in the liking-based respect condition perceived a stronger competence-based respect ($M_{\text{like respect}} = 4.62$, $SD_{\text{like respect}} = .68$) than participants in the no liking-based respect condition ($M_{\text{no like respect}} = 3.55$, $SD_{\text{no like respect}} = .69$).

Overall, participants in the four conditions also differed in their perception of liking-based respect, $F(3, 89) = 20.83$, $p < .01$, $\eta^2 = .41$. As intended by the manipulation, participants in the liking-based respect condition perceived stronger liking-based respect ($M_{\text{like respect}} = 4.69$, $SD_{\text{like respect}} = .78$) than participants in the no liking-based respect condition ($M_{\text{no like respect}} = 2.91$, $SD_{\text{no like respect}} = 1.18$). Additionally, participants in the competence-based respect condition perceived stronger liking-based respect ($M_{\text{comp respect}} = 4.40$, $SD_{\text{comp respect}} = .68$) than participants in the no competence-based respect condition ($M_{\text{no comp respect}} = 3.41$, $SD_{\text{no comp respect}} = .89$).

Both manipulations revealed to affect both kinds of perceptions. In other words, the perception of competence-based respect and of liking-based respect corresponded to a high degree, which is also reflected in a high correlation of the scales measuring competence-based respect and liking-based respect ($r = .76$, $p < .01$).

Although the manipulation was successful, separate consideration of each participant revealed that eleven participants did not answer the manipulation check items as expected according to their experimental condition (see Table 4-2). The following main analyses were performed first without participants with problematic commentaries ($n_1 = 93$), and second with additional exclusion of these eleven participants ($n_2 = 82$).

Table 4-2

Overview of the excluded participants

	Exclusion because of (1) problematic commentaries	(2) manipulation check	Total without (1)	Total without (1) & (2)
Competence-based respect	5	1	25	24
No competence-based respect	11	2	19	17
Liking-based respect	3	2	27	25
No liking-based respect	8	6	22	16
Total	27	11	93	82

Main analyses

Considering the above mentioned control variables, a MANCOVA with these control variables as covariates was performed on the reduced sample of 93 participants. The multivariate test revealed a non-significant effect (Wilks' $\lambda = .93$, $F(6, 142) = .90$, $p = .50$, $\eta^2 = .04$). The participants in the four conditions did neither differ in their contributions of hotel information ($F(3, 72) = .46$, $p = .71$, $\eta^2 = .02$) nor in their contributions of price information ($F(3, 72) = 1.75$, $p = .16$, $\eta^2 = .07$). However, the adjusted means differed in the expected direction and that partly obvious for liking-based respect (see Table 4-3 for adjusted means).

Table 4-3

Adjusted means of contributions to the database with controls as covariates

	Contributions of			
	Hotel codes		Price codes	
	M	*SE*	*M*	*SE*
Competence-based respect[a]	.68	.09	.75	.09
No competence-based respect[b]	.58	.11	.65	.10
Liking-based respect[c]	.66	.09	.83	.08
No liking-based respect[d]	.50	.10	.50	.10

Notes. [a] $N = 25$ [b] $N = 19$ [c] $N = 27$ [d] $N = 22$

One of the considered covariates revealed a significant influence on information sharing, namely the price contributions during practice trial, Wilks' $\lambda = .90$, $F(2, 71) = 4.23$, $p = .02$, $\eta^2 = .11$. In addition, three covariates revealed marginally significant effects, namely putting oneself in the role of the consultant (Wilks' $\lambda = .93$, $F(2, 71) = 2.78$, $p = .07$, $\eta^2 = .07$), the importance of price information (Wilks' $\lambda = .93$, $F(2, 71) = 2.57$, $p = .08$, $\eta^2 = .07$), and the importance of hotel information (Wilks' $\lambda = .93$, $F(2, 71) = 2.74$, $p = .07$, $\eta^2 = .07$).

Because eleven participants did not perceive the manipulation check according to their condition, a second MANCOVA with all control variables as covariates was performed on the reduced sample of the 82 participants with a successful manipulation check. Taking into account the different control variables, again the multivariate test revealed a non-significant effect, Wilks' $\lambda = .98$, $F(6, 120) = .25$, $p = .96$, $\eta^2 = .01$. The participants differed neither in their contributions of hotel information ($F(3, 61) = .20$, $p = .89$, $\eta^2 = .01$) nor in their contributions of price information ($F(3, 61) = .24$, $p = .87$, $\eta^2 = .01$). Compared to the former MANCOVA results, the adjusted means showed smaller differences. In addition, one of these differences was opposite to the expected direction (see Table 4-4 for adjusted means).

Table 4-4

Contributions to the database with controls as covariates

	Contributions of			
	Hotel codes		Price codes	
	M	*SE*	*M*	*SE*
Competence-based respect[a]	.69	.10	.69	.09
No competence-based respect[b]	.55	.12	.75	.12
Liking-based respect[c]	.66	.10	.76	.10
No liking-based respect[d]	.55	.13	.69	.13

Notes. [a] $N = 24$ [b] $N = 17$ [c] $N = 25$ [d] $N = 16$

In this analysis, two of the included covariates revealed significant effects: price contributions during practice trial (Wilks' $\lambda = .80$, $F(2, 60) = 7.70$, $p < .01$, $\eta^2 = .20$) and the importance of hotel coding (Wilks' $\lambda = .88$, $F(2, 60) = 4.23$, $p = .02$, $\eta^2 = .12$).

The two reported analyses based on two different samples resulting from two different exclusion criteria. Both analyses revealed non-significant results. However, the analysis that excluded participants with problematic commentaries but included the participants with an unsuccessful manipulation check showed clear mean differences in the expected direction. In contrast, the analysis which additionally excluded participants with an unsuccessful manipulation check showed a smaller mean difference and one mean difference in an unexpected direction. Thus, it is important to consider possible differences between participants with an unsuccessful manipulation check and participants with a successful manipulation check concerning the included covariates. The differences concerning all included covariates were considered in a multivariate analysis of variance. The analysis revealed that participants with an unsuccessful manipulation check and participants with a successful manipulation check differed significantly only in one of the covariates: Participants with an unsuccessful manipulation check perceived likeability as more important relative to competence ($M = 3.09$, $SD = 1.14$) than participants with a successful manipulation check ($M = 2.56$,

SD = .77), $F(1, 91) = 4.06$, $p < .05$. All other covariates did not reveal significant differences.

Mediation analyses

Because of the non-significant main effects of competence-based respect and liking-based respect on information sharing, the hypothesised mediation processes could not be tested. However, the manipulation check was successful. Thus, I considered the effect of the manipulation of competence-based respect and liking-based respect on the proposed mediators.

To analyse the differences in the mediators, a MANOVA with identification with the group (scale and graphical measure), importance of own contribution and importance of collective goals as dependent variables was performed. The multivariate test revealed a marginally significant effect (Wilks' $\lambda = .79$, $F(12, 225.18) = 1.79$, $p = .51$, $\eta^2 = .08$). In specific, participants in the four conditions identified with their group to significantly different degrees, $F(3, 88) = 2.72$, $p < .05$, $\eta^2 = .09$. Participants who received competence-based respect identified stronger with the group (*M* = 4.55, *SD* = .47) than participants who received no competence-based respect (*M* = 4.11, *SD* = .92). In addition, participants who received liking-based respect identified stronger with the group (*M* = 4.46, *SD* = .55) than participants who received no liking-based respect (*M* = 4.08, *SD* = 85). However, these differences did not appear on the graphical measure of identification, $F(3, 88) = .11$, $p = .96$, $\eta^2 < .01$. Furthermore, no differences appeared with regard to the importance of own contributions ($F(3, 88) = .58$, $p = .63$, $\eta^2 = .02$) and importance of collective goals ($F(3, 88) = .84$, $p = .48$, $\eta^2 = .03$).[7]

[7] The sample without the eleven participants with an unsuccessful manipulation check revealed nearly the same results. The effect of the manipulation on identification was even stronger, $F(3, 77) = 4.96$, $p < .01$, $\eta^2 = .16$.

Discussion

In contrast to Study 1, the manipulation check clearly showed that participants perceived the implemented manipulation in the expected way: Participants in the competence-based respect condition perceived more competence-based respect than participants in the no competence-based respect condition. Equally, participants in the liking-based respect condition perceived a higher liking-based respect than participants in the no liking-based respect condition. Thus, the improvement of the manipulation and the manipulation check items was successful.

Besides, the manipulation check also revealed that perceptions of competence-based respect and liking-based respect highly corresponded: Participants in the competence-based respect condition not only perceived a higher competence-based respect, but also a higher liking-based respect than participants in the no competence-based respect condition. Similarly, participants in the liking-based respect condition not only perceived a higher liking-based respect, but also a higher competence-based respect than participants in the no liking-based respect condition. Although the differences on the opposed respect scale were not as clear as the differences on the respective respect scale, they reached statistical significance. I interpret this as a halo effect: Participants received either information about competence-based respect or information about liking-based respect. Thus, to answer the manipulation check question concerning the other form of respect, participants could only resort to the received information. The result that the intended differences on the respective respect scale were greater than the unintended differences on the opposed respect scale suggests that competence-based respect and liking-based respect are not exactly the same, but may often go hand in hand.

Even though the manipulation was successful, participants who received competence-based respect did not share significantly more information than participants who received no competence-based respect. Nevertheless the two conditions showed small differences in the expected direction. Likewise, participants who received liking-based respect did not share significantly more information than participants who received no liking-based respect. But the two conditions showed small differences in the expected direction, which were somewhat greater than for competence-based respect, especially for the price contributions: Participants in the liking-based respect condition contributed more than one price information more to the shared database than the participants in the no liking-based respect condition. Given the fact that only four price

information could be contributed to the shared database, this is an encouraging result. The small variance in the dependent measures made it difficult to detect differences. In addition, information sharing behaviour is influenced by social desirability: More people contributed three or four information (price information: 64.6 percent; hotel information: 57.0 percent) than no, one or two information (price information: 35.5 percent; hotel information: 43.0 percent). Thus, further studies need to be conducted with a larger sample size.

The exclusion of eleven participants (with an unsuccessful manipulation check) altered the differences in information sharing between the conditions. After exclusion, participants who received liking-based respect still shared more price information than participants who received no liking-based respect, although this difference clearly decreased. Additionally, participants who received competence-based respect shared slightly less price information than participants who received no competence-based respect and, thus, the difference altered in an unexpected direction. The contribution of hotel information was nearly unaffected by the exclusion of the eleven participants. To find causes of these effects, I compared the participants with successful and unsuccessful manipulation check concerning the included covariates. This analysis revealed only one significant difference; namely, participants with an unsuccessful manipulation check perceived likeability as more important relative to competence than participants with a successful manipulation check. Keeping in mind that seven of the eleven participants with an unsuccessful manipulation check were in the no liking-based respect condition, the differing importance of likeability relative to competence can be interpreted as a kind of reactance effect of these seven participants on the manipulation check items: The participants who received no liking-based respect perceived the manipulation accordingly and were also influenced by it. Nevertheless, because they received no liking-based respect, their wish to be seen as likeable increased which was reflected in the higher relative importance of likeability. As a result, they indicated on the manipulation check items that the other consultants in the hotel association perceived them as likeable. These results demonstrate the instability of the results and revealed the necessity to control for different influencing variables and to conduct further studies with larger sample sizes.

The proposed mediators could not be tested because of the missing main effect of respect on information sharing. But the manipulation was successful and, thus, I considered whether the participants of the four conditions differed in the perception of

the mediators. Only one of the mediators was affected by the manipulation of respect: Participants who received either competence-based respect or liking-based respect identified stronger with the group than participants who received no respect. However, only the scale measure of identification revealed the expected significant differences. The difference between scale and graphical measure can be explained as follows: The graphical measure captures especially the cognitive aspect of identification, whereas the scale measure mainly includes affective aspects of identification. It is reasonable to expect that respect from fellow group members affects especially the affective aspects of identification (i.e., feeling towards fellow group members).

In contrast to my hypotheses, participants who received either form of respect did not perceive their own contribution as more important than participants who received neither form of respect. Likewise, participants who received either form of respect did not perceive collective goals as more important than participants who received neither form of respect. As outlined in the introduction, I based these hypotheses on the assumption that competence-based respect and liking-based respect are crucial for group members to appraise their relationship with the group. It could be that the presence or rather significance of the fellow group members was too weak so that the participants did not interpret their competence-based respect and liking-based respect as a sign for an intact relationship with them and, thus, no obligations to the group were entailed. Studies in which the respective group or its members are more significant for the participants should be conducted to further examine whether participants who receive competence-based respect and liking-based respect perceive their own contributions and the collective goals more important than participants who receive neither form of respect.

General discussion

In Study 1, the manipulation of competence-based respect and of liking-based respect was either unsuccessful or not assessed by the manipulation check items. Thus, the non-significant results concerning the information sharing behaviour are difficult to interpret. Consequently, the manipulation of both forms of respect and the manipulation check items were revised for Study 2.

In Study 2, the manipulation of both competence-based respect and liking-based respect was successful. Nevertheless the results concerning information sharing behaviour again failed to reach statistical significance, although the mean differences were in the expected directions.

Overall, the two studies demonstrate that the implementation of a task with high external validity results in many influencing factors that have to be taken into account. Within the used computer-based task paradigm, the participants had to understand the task itself as well as the organizational environment. Therefore, the participants had to read and understand many explanations. Presumably, not every participant understood everything to the intended degree, and the perceptions of the task as well as of the organisational environment varied among the participants. These perceptions of the task as well as of the organisational environment influenced the sharing behaviour of the participants and, thus, the manipulation of competence-based respect and liking-based respect was not the only influencing factor. In addition, the perception of the manipulation was more difficult because it was only one of much information given before the task. Under these circumstances, it is difficult to find expected effects of the manipulation. Against this background, the small but non-significant results in Study 2 are encouraging. Further studies with greater sample sizes will broaden our knowledge on how competence-based respect and liking-based respect affect information sharing behaviour and enable us to look at mediating processes.

In addition, the two studies demonstrate that the manipulation of competence-based respect and liking-based respect is not unproblematic. Even though the manipulation of competence-based respect resulted in stronger experience of competence-based respect and the manipulation of liking-based respect resulted in stronger experience of liking-based respect, both were not independent perceptions: The manipulation of competence-based respect also resulted in stronger experience of liking-based respect and the manipulation of liking-based respect resulted also in

stronger experience of competence-based respect. As mentioned before, this effect could be explained by a halo effect. Participants received either information about the perception of their competence by fellow group members or information about the perception of their likeability by fellow group members. Thus, when asked about the perception on which they received no information (e.g., on likeability), they deduced their answer from the received information (e.g., on competence). Future research should orthogonally manipulate both forms of respect to avoid such halo effect. Thereby, it could be examined how a group member who is perceived as likeable but incompetent or who is perceived as competent but dislikeable reacts.

Experimental research on competence-based respect and liking-based respect is rare. That is also true for information sharing. Furthermore, no study has considered competence-based respect and liking-based respect, and their effects on information sharing to date. The presented studies examined this research question and, thus, contributed to the understanding of competence-based respect and liking-based respect, and their effects on information sharing behaviour. Information sharing is a hot topic today which underlines the particular importance to find ways to solve the dilemma associated with it and to enhance the effectiveness of information sharing within organisations. Perhaps communicating competence-based respect as well as liking-based respect among organisational members can be one solution.

References

Bonacich, P., & Schneider, S. (1992). Communication networks and collective action. In W. B. G. Liebrand, D. M. Messick & H. A. M. Wilke (Eds.), *Social dilemmas. Theoretical issues and research findings* (pp. 225-245). Oxford: Pergamon.

Branscombe, N. R., Spears, R., Ellemers, N., & Doosje, B. (2002). Intragroup and intergroup evaluation effects on group behavior. *Personality and Social Psychology Bulletin, 28*(6), 744-753.

Cabrera, Á, & Cabrera, E. F. (2002). Knowledge-sharing dilemmas. Organization Studies, 23(5), 687–710.

Connolly, T., Thorn, B. K., & Heminger, A. (1992). Discretionary databases as social dilemmas. In W. B. G. Liebrand, D. M. Messick & H. A. M. Wilke (Eds.), *Social dilemmas: Theoretical issues and research findings* (pp. 199-207). Oxford: Pergamon.

Cress, U. (2005). Ambivalent effect of member portraits in virtual groups. *Journal of Computer Assisted Learning, 21*, 281-291

De Cremer, D. (2002). Respect and cooperation in social dilemmas: The importance of feeling included. *Personality and Social Psychology Bulletin, 28*(10), 1335-1341.

De Cremer, D. (2003). Noneconomic motives predicting cooperation in public good dilemmas: The effect of received respect on contributions. *Social Justice Research, 16*(4), 367-377.

De Cremer, D., & Tyler, T. R. (2005). Am I respected or not?: Inclusion and reputation as issues in group membership. *Social Justice Research, 18*(2), 121-153.

Ellemers, N., Doosje, B., & Spears, R. (2004). Sources of respect: The effects of being liked by ingroups and outgroups. *European Journal of Social Psychology, 34*, 155-172.

Ellemers, N., Kortekaas, P., & Ouwerkerk, J. W. (1999). Self-categorisation, commitment to the group and group self-esteem as related but distinct aspects of social identity. *European Journal of Social Psychology, 29*, 371-389.

Hertel, G., Niedner, S., & Herrmann, S. (2003). Motivation of software developers in open source projects: An internet-based survey of contributors to the Linux kernel. *Research Policy, 32*, 1159-1177.

Karau, S. J., & Williams, K. D. (2001). Understanding individual motivation in groups: The collective effort model. In M. E. Turner (Ed.), *Groups at work. Theory and research* (pp. 113-141). Mahwah, NJ: Erlbaum.

Schubert, T. W., & Otten, S. (2002). Overlap of self, ingroup, and outgroup: Pictorial measures of self-categorization. *Self and Identity, 1*(4), 353-376.

Simon, B., & Stürmer, S. (2003). Respect for group members: Intragroup determinants of collective identification and group-serving behavior. *Personality and Social Psychology Bulletin, 29*(2), 183-193.

Simon, B., & Stürmer, S. (2005). In search of the active ingredient of respect: A closer look at the role of acceptance. *European Journal of Social Psychology, 35*, 809-818.

Simon, B., & Trötschel R. (in press). Self and social identity In M. Hewstone, W. Stroebe, & K. Jonas (Eds.). Introduction to Social Psychology (4th ed.), Oxford: Blackwell.

Smith, H. J., & Tyler, T. R. (1997). Choosing the right pond: The impact of group membership on self-esteem and group-oriented behavior. *Journal of Experimental Social Psychology, 33*, 146-170.

Spears, R., Ellemers, N., & Doosje, B. (2005). Let me count the ways in which I respect thee: Does competence compensate or compromise lack of liking from the group? *European Journal of Social Psychology, 35*, 263-279.

Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. Austin (Eds.), *Psychology of intergroup relations* (pp. 7-24). Chicago: Nelson-Hall.

Tyler, T. R., & Blader, S. L. (2001). Identity and cooperative behavior in groups. *Group Processes and Intergroup Relations, 4*(3), 207-226.

Tyler, T. R., & Blader, S. L. (2003). The group engagement model: Procedural justice, social identity, and cooperative behavior. *Personality and Social Psychology Review, 7*(4), 349-361.

van Knippenberg, D. (2000). Work motivation and performance: A social identity perspective. *Applied Psychology: An International Review, 49*(3), 357-371.

Wojciszke, B. (2005). Affective concomitants of information on morality and competence. *European Psychologist, 10*(1), 60-70.

Chapter 5

General discussion

In the final chapter, I will summarize the purpose of my thesis and the results from the conducted studies. I will discuss these results in reference to the proposed theoretical model and suggest some explanations and further research questions. In addition, I will comment on some methodological issues. Finally, I will conclude the overall critique on my thesis and highlight two important future research topics.

5.1 Summary of purpose

As outlined in the introduction, respect has been defined and operationalized in various ways in recent social psychological research. In my thesis, I focussed on two forms of respect that have scarcely been studied up until now: *competence-based respect* and *liking-based respect*. Spears, Ellemers, and Doosje (2005) were the first who explicitly outlined the meaning of both forms within group contexts and studied them systematically. Only a handful other studies (Branscombe, Spears, Ellemers, & Doosje, 2002; Ellemers, Doosje, & Spears, 2004; Simon & Stürmer, 2003, 2005) were concerned with either competence-based respect or liking-based respect, although the authors did not use these terms.

Within the introduction, I stressed the importance of both forms of respect for group-serving behaviour. Group-serving behaviour is essential to the functioning of groups (e.g., in the work context). In today's world, work is increasingly organized in teams and projects. Thus, people within these teams or projects depend on each other to successfully complete their tasks. Especially *sharing of information* among employees becomes more and more important and is a hot topic in today's knowledge-based society. However, experimental studies on this topic are rare (Bonacich & Schneider, 1992; Connolly, Thorn, & Heminger, 1992; Cress & Hesse, 2004). In my thesis, I therefore considered group-serving behaviour and information sharing as a specific form of group-serving behaviour. To not only study intentions for group-serving behaviour (as done in the studies of Chapter 3), I used a new paradigm to capture information sharing behaviour within a laboratory setting (as done in the studies of Chapter 4).

Based on theories about respect, information sharing, and cooperation within groups, I proposed the model displayed in Figure 5-1. I expected that the perception of both forms of respect enhances group-serving behaviour. Additionally, I expected that *identification with the group* as well as *importance of collective goals* and *importance of own contributions* mediate the effect of perceived respect on group-serving behaviour (see Chapter 1 for more details), whereas previous studies concentrated on identification with the group as the only mediator.

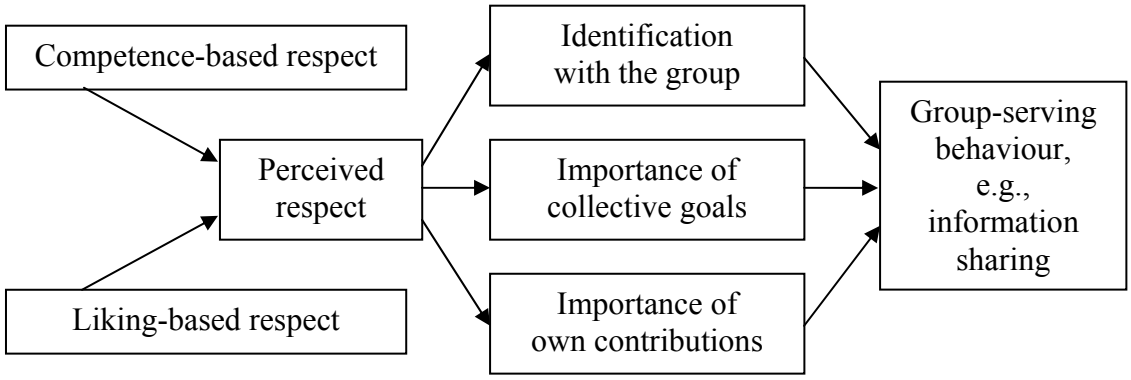


Figure 5-1. Summary of the hypotheses

To sum up, I focussed on two rarely studied forms of respect in the highly relevant context of information sharing. Furthermore, I proposed mediation processes that may explain the effects of both forms of respect on group-serving behaviour. Above improving the theoretical understanding of respect and its effects, I aimed to reveal the practical implications that competence-based respect and liking-based respect have in fostering organisational information sharing via databases.

5.2 Summary of results

In Chapter 3, I presented two scenario studies. Participants of the studies were asked to imagine that they were part of a work group at university and that they were treated respectfully or disrespectfully by the two other work group members. The intentions of the participants to invest in the group work and to make extra effort constituted the dependent measures. The hypothesis that both forms of respect enhance group-serving behaviour intentions was confirmed even though liking-based respect did not result in feelings of being respected. Furthermore, the second study showed that the proposed mediators play a role in explaining this effect: Path analyses revealed that the perception of respect enhanced identification with the group as well as importance of collective goals and of own contributions and that these variables partly mediated the effect of perceived respect on group-serving behaviour. In addition to confirming the central hypotheses, results of Study 2 showed that the effect of information sharing on group-serving behaviour intentions was moderated by the context. More precisely, the effect was moderated by the perceived reciprocity within the context: Participants who received either competence-based respect or liking-based respect showed stronger group-serving behaviour intention in a context in which exchange among students is rather uncommon (i.e., low reciprocity). However, in a context in which exchange is very common (i.e., high reciprocity), participants perceived the once-only absence of respect as unimportant and showed similar strong group-serving behaviour intentions as participants who received either competence-based respect or liking-based respect.

In Chapter 4, I presented two studies conducted with a computer-based task paradigm. Therein, participants were asked to imagine that they were consultants in a hotel union, that they had to answer a series of customer inquiries, and that they could voluntarily share information with their colleagues via databases. The voluntarily shared information constituted the dependent measure. Study 1 was not successful in manipulating the considered forms of respect. Thus, the manipulation as well as the manipulation check was revised for Study 2. Although the manipulation of competence-based respect and liking-based respect was successful in Study 2, neither form of respect enhanced information sharing behaviour and, thus, the results did not confirm the corresponding hypotheses. Consequently, the proposed mediation processes could not be considered.

Taken together the results reveal that competence-based respect and liking-based respect enhance group-serving behaviour. The first two studies strongly support the main hypothesis of my thesis even if this result could not be confirmed in Study 2 of Chapter 4. Thus, the thesis emphasizes that both forms of respect are important in causing group-serving behaviour. Furthermore, Study 2 of Chapter 3 confirmed the importance of the proposed mediators: Participants who felt respected identified stronger with the group and perceived their contributions and the collective goals more important and, in turn, showed stronger group-serving behaviour intentions. In considering two additional mediators, the thesis broadens the discussion about relevant mediating processes that explain why both forms of respect enhance group-serving behaviour: Respected people do not only identify more strongly with their group but also perceive their contributions as well as the collective goals more important.

The fact that the main hypothesis was confirmed in the studies of Chapter 3, but not in Study 2 of Chapter 4[1], necessitates discussing the differences between the two series of studies. In the next section, I elaborate three explanations for the different results. Afterwards, I additionally stress some methodological problems. By doing this, I will reveal important questions for future research that may further enhance our knowledge about competence-based respect and liking-based respect and their effects.

[1] I exclude Study 1 of Chapter 4 from this discussion because of the unsuccessful respect manipulation.

5.3 Discussion of results

As shown in the summary of results, competence-based respect and liking-based respect did enhance group-serving behaviour but only in the studies of Chapter 3. Discussing the differences between the two series of studies can reveal variables which may influence the effects of both forms of respect on group-serving behaviour and which should be focussed upon in future research. In the following, I will stress three of such variables.

5.3.1 Explanation 1: Perceived behavioural control

A difference between the two series of studies is that I considered *intentions* in Chapter 3 whereas I considered *behaviour* in Chapter 4. It is possible that participants in Study 2 of Chapter 4 also formed the intention to share information when they received either competence-based respect or liking-based respect, but that the formed intentions were not the only thing that influenced their information sharing behaviour. Behavioural intentions are important predictors of behaviour. However, the quality of prediction varies to a great degree, a phenomenon well-known in attitude research as the "intention-behaviour gap." To improve the prediction of behaviour, the original theory of reasoned action (Fishbein & Ajzen, 1980) was extended to the theory of planned behaviour (Ajzen, 1991) which included *perceived behavioural control* as predictor of behaviour as well as of intentions. This means that people form stronger intentions concerning a certain behaviour when they feel in control over this behaviour (i.e., when they believe that they are able to perform this behaviour). In addition, they also perform this behaviour with higher probability when they believe to have control over this behaviour. Meanwhile, several studies have confirmed that behavioural control is crucial in realising behavioural intentions (e.g., Sniehotta, Scholz, & Schwarzer, 2005; see Armitage & Conner, 2001 for a review) when the considered behaviour is not completely under volitional control.

The above mentioned line of research reveals that intention and behaviour are not exactly the same and that implementing intention in behaviour is additionally influenced by behavioural control. In the studies of Chapter 3, I considered intentions but not behaviour. Taking additionally into account that the behaviour (i.e., student activities) to which the intentions referred was familiar to the student participants and,

thus, under high behavioural control, behavioural control was rather unimportant for predicting the considered intentions. In contrast to this, in Study 2 of Chapter 4, I directly considered behaviour as dependent measure and the participants were rather unfamiliar with this behaviour. Here, participants had to learn and perform a new task. Thus, aspects of behavioural control were presumably more important than in the studies of Chapter 3. Hence, I measured certain variables to take into account perceived behavioural control (e.g., the handling of the coding). Including these measures as covariates in the analyses revealed their importance in predicting behaviour (i.e., in Study 2, contributions during the practice trail which are indicators of how well participants could handle the task). This result is in line with the theory of planned behaviour. It is possible that behavioural control was more important for information sharing behaviour within the computer-based task than the manipulation of respect and, thus, the small effects of respect on information sharing behaviour could not be detected.

Future research should employ one of two study designs in order to examine this explanation and include measures of behavioural control. In the first design, the same computer-based task is used together with a larger sample size to identify the (possibly small) effects of respect. Consequently, if the explanation holds true, this design will show that respect influences information sharing, but to a smaller degree than behavioural control. In the second design, an easier or more familiar task is used to reduce the influence of behavioural control. Thus, if this explanation holds true, this design will reveal stronger effects of respect on information sharing behaviour compared to the computer-based task. Further studies on this explanation could foster the understanding of varying effects of respect on group-serving behaviour by highlighting the importance of behavioural control regarding the considered group-serving behaviour.

5.3.2 Explanation 2: Generalisation of respect

A further difference between the two series of studies concerns the behaviour for which respect was given and how this behaviour relates to the considered dependent behavioural (intention) measures: In the studies of Chapter 3, respect was given for providing work group members with literature; similar behaviour constituted the dependent measure of group-serving behaviour intentions (i.e., passing a specific article

to work group members or providing support in doing literature research). In Study 2 of Chapter 4, respect was given for contributing proposals within a group discussion; quite different behaviour constituted the dependent measure of group-serving behaviour (i.e., sharing information via database). In Study 2 of Chapter 4, thus, it could be that participants perceived respect as specifically given for contributions of proposals within a group discussion and did not expect respect for information sharing via database: The respect given was not generalized to all group-serving behaviour. The participants had too little information to expect that information sharing via database was also appreciated by fellow team members in the hotel association. How group members' appreciation of information sharing alters the effect of respect on information sharing can be investigated by a study systematically manipulating information about this appreciation and about respect. In addition to altering the effect of respect on information sharing, it may be that the appreciation of information sharing by fellow group members in itself has positive effects on information sharing.

Furthermore, I would expect that if a person feels to be a respected and integrated group member, he or she will perform any kind of group-serving behaviour regardless of the kinds of behaviour on which given respect was originally grounded. One possibility to test this expectation is explicitly manipulating the degree to which a group member is integrated and respected within the group.

5.3.3 Explanation 3: Identifiability of individual contributions

The third explanation concentrates on the differences between the kinds of behaviour considered in both series of studies. In the studies of Chapter 3, participants were *identifiable* regarding their group-serving behaviour, not only when respect was given (i.e., within the manipulation) but also when expressing group-serving behaviour intentions (i.e., the dependent measure). In Study 2 of Chapter 4, participants were only identifiable when respect was given (i.e., within the manipulation); during the information sharing task, participants *acted anonymously* so that their contributions to the database were not identifiable for the other group members (i.e., the dependent measure). Thus, participants could not receive respect from fellow group members due to their contributions to the database. It may be that group-serving behaviour was perceived to be instrumental in receiving respect in all studies. In the studies of Chapter 3, the dependent measure of group-serving behaviour was also instrumental in receiving

respect because it was identifiable and, thus, respect enhanced it. However, in Study 2 of Chapter 4, the dependent measure of group-serving behaviour was not instrumental because it was not identifiable and, thus, respect did not enhance it.

For Study 2 of Chapter 4, I had deliberately chosen information sharing behaviour in an anonymous social dilemma situation as dependent measure. Following social dilemma research (Van Lange, Liebrand, Messick, & Wilke, 1992), if sharing behaviour in such a dilemma situation was identifiable, people would share information to a much higher degree. However, I wanted to show that respect can solve an anonymous dilemma situation, too, given that this respect is a generalised feeling of being a respected group member perceived as competent or likeable by fellow group members. In the last section, I mentioned the possibility that the respect manipulation employed did not result in a general feeling of respect. Nevertheless, I expect that if people feel to be respected group members perceived as competent or likeable by fellow group members in general, they will perform different kinds of group-serving behaviour, even if this behaviour is not identifiable to fellow group members.

In addition to the above proposed studies, further studies are needed to examine how information sharing behaviour in the computer-based task paradigm is modified when it is identifiable for all group members compared to when it is not identifiable. However, I expect that if sharing behaviour in such a dilemma situation is identifiable, information sharing will be enhanced to a high degree. Therefore, studies with large sample sizes are necessary to confirm that being respected influences information sharing beyond the effect of being identifiable in contributing.

To summarize, I consider it important to explicitly address the question how behavioural control regarding group-serving behaviour, generalisation of given respect, and identifiability of group-serving behaviour influence the effect of respect on group-serving behaviour in further studies. These are three variables that might have caused the different results in my studies. Research that systematically varies these variables would improve our understanding of respect and its importance within groups by highlighting the conditions under which respect enhances group-serving behaviour.

5.4 Methodological issues

Besides theoretical considerations, some methodological issues need critical reflection and may additionally contribute to explaining the different results of the studies described in Chapter 3 and 4. I used two different methodological approaches to operationalise the dilemma situation and to measure group-serving behaviour on which I will comment in the following. Furthermore, I will discuss the implemented manipulation of respect. Finally, I will comment on chosen sample and setting of the studies.

5.4.1 Experimental paradigms

For the first series of studies (Chapter 3), I used the *scenario technique*. Scenarios have been widely used within social psychological research to analyse decision processes. They allow for systematic manipulation of variables whereas all other given information is held constant. Moreover, participants experience scenario descriptions as realistic. However, scenario studies do not consider real behaviour but behavioural intentions, and these behavioural intentions are only influenced by imagined, but not necessarily experienced situations. Several studies have shown that expressed behavioural intentions as reaction to situation descriptions are not necessarily the same as observed behaviour in such situations. Nevertheless, the scenario technique is an accepted method to examine human decision making and behavioural intentions as antecedences of behaviour (for a method-critical discussion see Bieneck, 2005).

To overcome the problems of the scenario technique and to consider real sharing behaviour, I conducted a second series of studies with a *computer-based task paradigm*. The paradigm was geared to the paradigm from Cress and colleagues (e.g., Cress, 2005). However, it differed in an important aspect: Whereas Cress' paradigm implemented a dilemma situation with a computable payoff matrix (that was transparent to their participants), my paradigm implemented a probabilistic structure. Probabilistic structure in this sense means that the value of distributable information varied and, thus, the benefit of receiving certain information (i.e., time saving) varied as well. Therefore, the payoff matrix was not computable. I used a probabilistic structure because this structure is common for organisational databases. I attempted to implement a realistic

laboratory task with which I could assess information sharing behaviour. I tried to achieve a high external validity.

Consequently, in the computer-based task paradigm, the participants had to handle a considerable amount of information: information about the hotel association, their job position, their task, and their relationship with the other team members (i.e., the respect manipulation). In contrast, in the scenario studies, the participants merely received the situation description (including the respect manipulation). Because of the complexity of the computer-based task paradigm, information sharing was not only affected by the manipulation but also by the degree to which participants understood and could handle the task. Thus, behavioural control over information sharing via the implemented database was a crucial variable (see explanation 1). This made it difficult to detect the proposed effects. Thus, finding effects of respect on group-serving behaviour was much harder in the computer-based task paradigm studies than in the scenario studies.

5.4.2 Manipulation of respect

In all conducted studies, the manipulation of respect was implemented on an imaginary level: The participants were asked to imagine a specific group situation in which they performed certain behaviour and for this behaviour the participants received competence-based respect or liking-based respect. For the scenario studies, the imagination of respect was inevitable: Participants were asked to imagine a work group situation in which they, as work group members, did or did not receive respect from two other work group members and, afterwards, rated their intentions concerning a certain group-serving behaviour. The manipulation by imagination was also chosen for the computer-based task paradigm because the task itself lasted about an hour due to its high complexity: Here, participants were asked to imagine a group discussion situation in which they received respect or disrespect from their fellow colleagues and, afterwards, answered a series of customer inquiries; by doing this, they had the possibility to share information with fellow colleagues. The manipulation of respect was very similar in all studies and, thus, cannot contribute to explaining the different results of the studies in Chapter 3 and 4. However, the manipulation of respect is one of the most crucial aspects of my thesis. Thus, I want to stress some methodological issues.

Regardless of whether the manipulation of respect is based on an imaginary situation description or on a real (or rather faked) interaction, the manipulation of respect in an experimental setting is associated with problems: In my view, it is always possible that the participants re-interpret the given respect information. As Tesser (1986) stressed in his self-evaluation maintenance model (SEM), people aspire to have and maintain a positive self-evaluation when comparing with other people. Tesser's model included three variables that are especially important in self-evaluation maintenance processes: The psychological closeness of the other person, the relative performance of the other person, and the relevance of the performance dimension. All three variables can be the basis for altering the result of a social comparison. For example, a student can reduce the psychological closeness to another student who is very sportive and, thereby, diminish the relevance of this student for social comparison, or he can reduce the relevance of being sportive for himself and, thereby, bask in reflected glory of the other student and his successes (the latter effect was shown, e.g., by Cialdini, Borden, Thorne, Walker, Freeman, & Sloan, 1976). Even if receiving respect is not the same as comparing oneself with another person, self-evaluation maintenance processes should be relevant in both cases. Thus, I expect the same underlying social cognitive processes to be important as stressed by SEM.

First, how people perceive given respect should depend on the psychological closeness or *significance of the fellow group members*. In an experimental setting, the significance of fellow group members may not be as strong and stable as in real groups, and experimentally introduced group members may be easily devaluated in their significance.

Second, how people perceive given respect should furthermore depend on how they perceive the *characteristics and behaviour of their fellow group members* (their relative performance). For example, if people believe that fellow group members are incompetent, they will perhaps disregard competence-based respect given by these group members altogether.

Third, how people perceive given respect also depends on how they perceive the *relevance of the considered behaviour dimension* which is the basis for given respect. For example, if people do not perceive the considered behaviour relevant to performing competently, they will perhaps not be concerned about the evaluation given by fellow group members.

These three aspects highlight that participants had many possibilities to re-interpret the given respect information, which makes it difficult to induce the intended feelings of respect. People are "active social comparers" (Wood, 1989, p. 243). The described re-interpretation processes affect the perception of respect. Further studies are needed to better understand how the ascribed significance of fellow group members, their perceived characteristics, and the ascribed relevance of the (dis)respected behaviour influence the effect of respect on group-serving behaviour. Such studies would show whether the psychological mechanisms underlying social comparison also affect the perception of respect.

5.4.3 Sample and setting

In all studies, participants were *students*. In the studies of Chapter 3, the situation described in the scenario was specific for the *university context*. The results of Study 1 concerning competence-based respect were replicated in Study 2, although the studies were conducted in two different German-speaking countries and, thus, at different universities with different student samples. In the studies of Chapter 4, I realised a laboratory task in which the student participants were asked to imagine that they were customer consultants in a hotel union. Thereby, I tried to realise a situation typical for *organisational contexts*. The students of the University of Zurich who took part in the studies had various job experiences because it is usual that students in Switzerland work to a rather high degree besides their studies. Consequently, the participants could imagine the described work situation quite well. Nevertheless, I could not confirm my hypotheses.

Even though I expected that the proposed effects of respect on group-serving behaviour hold true for the scenario studies as well as for the computer-based task studies, I only found these effects in the scenario studies. Some explanations therefore were discussed in the former sections. Beyond these, one further explanation is possible with regard to sample and setting: The university context and the organisational context differ in some instances. For example, organisational contexts are often characterised by competitive norms that undermine cooperative behaviour in general whereas university contexts are often characterised by cooperative norms that strengthen cooperative behaviour in general. In both experimental paradigms, I implemented a dilemma situation and, thus, accentuated competitive norms. Nevertheless, participants'

experiences might have influenced the perception of the context which could have resulted in a more cooperative perception of the university context and a more competitive perception of the organisational context. Further studies are needed that systematically manipulate competitive and cooperative norms in both settings to examine their influence on the effect of respect on group-serving behaviour.

My studies did not only differ in the experimental context but also in effect size. In the studies of Chapter 3, the *effect sizes* (η^2) for the effects of respect on group-serving behaviour intentions varied between .03 and .15, with somewhat higher effect sizes in Study 1. In Study 2 of Chapter 4, the effects of respect on group-serving behaviour did not reach statistical significance and the effect sizes varied between .01 and .07. The difference between studies of Chapter 3 and Study 2 of Chapter 4 is reasonable according to the discussion above: In Study 2 of Chapter 4, information sharing behaviour was not only influenced by the respect manipulation but also by the understanding and handling of the task itself. Possibilities to examine this aspect in more detail were discussed above.

Furthermore, the effects of both forms of respect are small throughout the studies. Group-serving behaviour (intentions) might be additionally influenced by different variables like attitudes towards, and normative beliefs about the considered group-serving behaviour. Nevertheless, I expect that respect is a very influential variable in real group settings with significant fellow group members. Therefore, in my view it is necessary to conduct *field studies* in real and consequently significant group settings in addition to experimental studies.

To sum up, further studies are needed that examine the effects of respect on group-serving behaviour with different experimental paradigms in the laboratory, supplemented by field studies, using samples from different populations. In addition, further studies are needed to better understand cognitive reaction to given respect that may result in re-interpretation of it.

5.5 Conclusion

Within this dissertation project, I performed some of the first studies that empirically investigate the effects of competence-based respect and liking-based respect. Previous studies had mainly examined effects of competence-based respect and liking-based respect on attitudes and behavioural intentions (as I did in the studies of Chapter 3 as well). Studies about real group-serving behaviour are rare. One important group-serving behaviour is information sharing. However, only few studies have experimentally examined information sharing. To the best of my knowledge, the dissertation project is the first that considered the effect of the mentioned forms of respect on information sharing behaviour (as I did in the studies of Chapter 4).

I proposed different mediation processes that can explain why competence-based respect and liking-based respect enhance group-serving behaviour in general and information sharing in particular and, thereby, extended the previously considered mediation processes. I derived my hypotheses from the social identity theory, the group engagement model, and the collective effort model, which are three elementary theories in social psychology.

Empirically, I pursued two series of studies based on two different approaches: First, I conducted two scenario studies in which I confirmed the effect of both forms of respect on group-serving behaviour intentions. For competence-based respect, I replicated the effect and showed thereby that competence-based respect influenced group-serving behaviour intentions in different student samples, at different universities, and in two German-speaking countries. Second, I conducted two studies with a computer-based task paradigm in which I considered real information sharing behaviour. Unfortunately, I could not confirm my hypotheses in these two studies. Possible reasons have been discussed in the sections above. In addition, the major methodological limitations have been outlined in detail in the sections above. In doing this, I stress some interesting future research questions.

Beyond former discussions, I will only highlight the importance of considering the *respect construct* in more detail. While working on this dissertation project, I became increasingly aware that the major challenge is the definition and operationalisation of respect. From hindsight, I think it is necessary to provide answers to the following questions: “What are the cognitive mechanisms of respect perception?” and “What are the psychometrical dimensions of respect?” The group engagement

model (Tyler & Blader, 2003) may be true in its assumption that respect is influenced by procedural and resource judgments. In my view, however, it is not yet well-defined which specific procedures and resources (e.g., periodical supervisor feedback and performance-based salary in an organisational context) are crucial for people to feel respected within groups, which procedures and resources are most important, and which procedures and resources can compensate for other procedures and resources. By differentiating between various procedures and resources, it should also become possible to differentiate between various dimensions or forms of respect. Only then, a satisfying definition of respect can be given and feeling of respect can be effectively induced by experimental manipulation.

In addition, *absence of respect* is hardly comparable with *disrespect*, and both open space for re-interpretation. What does it mean that fellow group members do not recognise a certain valuable act of another group member? Do they disrespect him or her? Or do they simply forget to mention it? What does it mean that fellow group members express their disrespect for another group member? Do they really disrespect him or her? Or do they try to goof on him or her (because they compete with him or her)? During my dissertation project, I did not clearly distinguish between absence of respect and disrespect because this was not my main focus. In hindsight, however, it seems to be an important distinction. In Study 2 in Chapter 4, I manipulated respect versus disrespect whereas in all other studies I manipulated respect versus absence of respect. I chose the disrespect manipulation to strengthen the difference between the conditions. However, the results of Study 2 in Chapter 4 revealed that participants who received disrespect were more suspicious and, in the liking-based disrespect condition, possibly showed reactance on the manipulation check items (see Chapter 4 for discussion of this result).

The difficulty with disrespect also became prevalent in the recently published studies of Sleebos, Ellemers, and de Gilder (2006a, 2006b). They showed that disrespected group members also engage in group-serving behaviour under certain circumstances, namely when they aspired to full membership and the group-serving behaviour allowed for altering the acceptance within the group. Besides this, I see two further reactions to disrespect: Group members have the possibility to re-interpret the expression of disrespect (as I discussed above) or, when possible, to leave the respective group and join another significant group. Thus, future research should carefully

distinguish between absence of respect and disrespect and take into account the situational constraints for group members' reactions.

To sum up, I see two important future research directions resulting from my dissertation project. First, it would be important to clarify the definition and understanding of the respect concept in more detail, theoretically and empirically. Without complete clarity about the respect definition and the different forms of respect, study results are hardly comparable and knowledge about the effects of respect is not built systematically.

Second, it would be important to strengthen research on intragroup dynamics and their importance for social identity concerns. To date, many studies exist about intergroup phenomena and their effects on social identity. Research on intragroup respect has started to emphasize the importance of intragroup dynamics to explain social identification and group-serving behaviour. Beyond that research, few other researchers (e.g., Hornsey & Jetten, 2004; Sheldon & Bettencourt, 2002) have stressed the intragroup perspective. For instance, Sheldon and Bettencourt (2002) have discussed and examined individual need-satisfaction within social groups. They compared predictions of the self-determination theory (Deci & Ryan, 1991), which is concerned with individual need satisfaction, with predictions of the optimal distinctiveness theory (Brewer, 1991), which is concerned with need satisfaction in the context of salient group membership. Such research is an interesting approach to overcome the distinction between research focussing on individuals and interpersonal relations, and research focussing on groups and intergroup relations. In my view, bringing together both, more individual-oriented theories and more group-oriented theories, can help us to better understand intragroup dynamics because it has the potential to shed light on the individuals within the group and, thereby, on interactions among group members. This is what I will focus on in my further research activities.

References

Aharpour, S., & Brown, R. (2002). Functions of group identification: An exploratory analysis. *Revue internationale de psychologie sociale, 15*, 157-186.

Aiken, I. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interaction*. Newbury Park, CA: Sage.

Ajzen, I. (1991). The theory of planned behavior. *Organisational Behavior and Human Decision Processes, 50,* 179-211.

Ajzen, I., & Fishbein, M. (1974). Factors influencing intentions and the intention-behavior relation. *Human Relations, 27*(1), 1-15.

Armitage, C. J., & Conner, M. (2001). Efficacy of the Theory of Planned Behaviour: A meta-analytic review. *British Journal of Social Psychology, 40,* 471–499

Ashforth, B. E., & Mael, F. (1989). Social identity and the organization. *Academy of Management Review, 14,* 20-39.

Bonacich, P., & Schneider, S. (1992). Communication networks and collective action. In W. B. G. Liebrand, D. M. Messick & H. A. M. Wilke (Eds.), *Social dilemmas. Theoretical issues and research findings* (pp. 225-245). Oxford: Pergamon.

Baumeister, R. F. (1998). The self. In D. T. Gilbert, S. T. Fiske & G. Lindzey (Eds), *The handbook of social psychology, Vol. 1* (pp. 680-740). New York and Oxford: Oxford University Press.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497-529.

Branscombe, N. R., Spears, R., Ellemers, N., & Doosje, B. (2002). Intragroup and intergroup evaluation effects on group behavior. *Personality and Social Psychology Bulletin, 28*(6), 744-753.

Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin, 17*(5), 475-482.

Brewer, M B., & Gardner, W. (1996). Who is the we? Levels of collective identity and self representations. *Journal of Personality and Social Psychology, 71*(1), 83-93.

Brown, R. (2000). Social identity theory: Past achievements, current problems and future challenges. *European Journal of Social Psychology, 30*, 745-778.

Cabrera, Á, & Cabrera, E. F. (2002). Knowledge-sharing dilemmas. *Organization Studies, 23*(5), 687–710.

Caporael, L.R. (2001). Parts and wholes. The evolutionary importance of groups. In C. Sedikides & M. B. Brewer (Eds.), *Individual self, relational self, collective self* (pp.243-258). Philadelphia, PA: Psychology Press.

Cialdini, R. B., Borden, R. J., Thorne, A., Walker, M. R., Freeman, S., & Sloan, L. R. (1976). Basking in reflected glory: Three (football) field studies. *Journal of Personality and Social Psychology, 34*(3), 366-357.

Cohen, J. (1988). *Statistical power analysis for the behavioral science* (2nd ed.). Hillsdale, New Jersey: Lawrence Erlbaum.

Connolly, T., Thorn, B. K., & Heminger, A. (1992). Discretionary databases as social dilemmas. In W. B. G. Liebrand, D. M. Messick & H. A. M. Wilke (Eds.), *Social dilemmas: Theoretical issues and research findings* (pp. 199-207). Oxford: Pergamon.

Cress, U. (2005). Ambivalent effect of member portraits in virtual groups. *Journal of Computer Assisted Learning, 21*, 281-291.

Cress, U., & Hesse, F. W. (2004). Knowledge sharing in groups: Experimental findings of how to overcome a social dilemma. In Y. Kafai, W. Sandoval, N. Enydey, A. S. Nixon, & F. Herrera (Eds.), *Proceedings of the Sixth International Conference of the Learning Science* (pp. 150-157). Mahwah, NY: Lawrence Erlbaum.

Deaux, K., Reid, A., Mizrahi, K., & Cotting, D. (1999). Connecting the person to the social: The functions of identification. In T. R. Tyler & R. Kramer (Eds.), *The psychology of the social self* (pp. 91-113). Mahwah, NJ: Lawrence Erlbaum Associates.

Deci, E. L., & Ryan, R. M. (1991). A motivational approach to self: Integration in personality. In R. Dienstbier (Ed.), *Nebraska symposium on motivation: Vol. 38, Perspectives on motivation* (pp. 237-288). Lincoln, NE: University of Nebraska Press.

De Cremer, D. (2002). Respect and cooperation in social dilemmas: The importance of feeling included. *Personality and Social Psychology Bulletin, 28*(10), 1335-1341.

De Cremer, D. (2003). Noneconomic motives predicting cooperation in public good dilemmas: The effect of received respect on contributions. *Social Justice Research, 16*(4), 367-377.

De Cremer, D., & Tyler, T. R. (2005). Am I respected or not?: Inclusion and reputation as issues in group membership. *Social Justice Research, 18*(2), 121-153.

Ellemers, N., Doosje, B., & Spears, R. (2004). Sources of respect: The effects of being liked by ingroups and outgroups. *European Journal of Social Psychology, 34*, 155-172.

Ellemers, N., Kortekaas, P., & Ouwerkerk, J. W. (1999). Self-categorisation, commitment to the group and group self-esteem as related but distinct aspects of social identity. *European Journal of Social Psychology, 29*, 371-389.

Fishbein, M., & Ajzen, I. (1980*). Understanding attitudes and predicting social behavior*. Engelwood Cliffs, NJ: Prentice Hall.

Forsyth, D. R., Elliott, T. R., & Welsh, J. A. (1999). The functions of groups: A psychometric analysis of the group resources inventory. *The International Journal of Action Methods, 52*(1), 1-14.

Gaertner, L., Iuzzini, J., Guerrero Wit, M., & Oriña, M. M. (2006). Us without them: Evidence for an intragroup origin of positive in-group regard. *Journal of Personality and Social Psychology, 90*(3), 426-439.

Greitemeyer, T., & Schulz-Hardt, S. (2003). Preference-consistent evaluation of information in the hidden profile paradigm: Beyond group-level explanations fort he dominance of shared information in group decisions. *Journal of Personality and Social Psychology, 84*(2), 322-339.

Hertel, G., Niedner, S., & Herrmann, S. (2003). Motivation of software developers in open source projects: An internet-based survey of contributors to the Linux kernel. *Research Policy, 32*, 1159-1177.

Hogg, M. A., & Abrams, D. (1993). Towards a single-process uncertainty-reduction model of social motivation in groups. In M. A. Hogg & D. Abrams (Eds.), *Group motivation: Social psychological perspectives* (pp. 173-190). New York: Harvester-Wheatsheaf.

Hornsey, M., & Jetten, J. (2004). The individual within the group: Balancing the need to belong with the need to be different. *Personality and Social Psychology Review, 8*(3), 248-264.

Johnson, A. L., Crawford, M. T., Sherman, S. J., Rutchick, A. M., Hamilton, D. L., Ferreira, M. B., & Petrocelli, J. V. (2006). A functional perspective on group memberships: Differential need fulfilment in a group typology. *Journal of Experimental Social Psychology, 42*, 707-719.

Kalman, M. E., Monge, P., Fulk, J., & Heino, R. (2002). Motivations to resolve communication dilemmas in database-mediated collaboration. *Communication Research, 29*(2), 125-154.

Karau, S. J., & Williams, K. D. (2001). Understanding individual motivation in groups: The collective effort model. In M. E. Turner (Ed.), *Groups at work. Theory and research* (pp. 113-141). Mahwah, NJ: Erlbaum.

Karau, S. J., & Williams, K. D. (1993). Social loafing: A meta-analytic review and theoretical integration. *Journal of Personality and Social Psychology, 65*(4), 681-706.

Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence*. New York: Wiley.

Klandermans, B. (1984). Mobilization and participation: Social-psychological expansions of resource mobilization theory. *American Sociological Review, 49*, 583-600.

Larson, J. R., Foster-Fishman, P. G., & Keys, C. B. (1994). Discussion of shared and unshared information in decision-making groups. *Journal of Personality and Social Psychology, 67*(3), 446-461.

Lind, E. A., & Tyler, T. R. (1988). *The social psychology of procedural justice*. New York: Plenum.

Moser, K. S. (2002). Wissenskooperation: Die Grundlage der Wissensmanagement-Praxis. In W. Lüthy, E. Voit & T. Wehner (Eds.), *Wissensmanagement - Praxis: Einführung, Handlungsfelder und Fallbeispiele* (pp. 97-113). Zürich: vdf Hochschulverlag.

Probst, G., Raub, S., & Romhardt, K. (2006). *Wissen managen. Wie Unternehmen ihre wertvollste Ressource optimal nutzen*. Wiesbaden: Gabler.

Reid, A., & Deaux, K. (1996). Relationship between social and personal identities: Segregation or integration? *Journal of Personality and Social Psychology, 71*(6), 1084-1091.

Rusbult, C., & Van Lange, P. (1996). Interdependence processes. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology* (pp. 564–596). New York: Guilford.

Schubert, T. W., & Otten, S. (2002). Overlap of self, ingroup, and outgroup: Pictorial measures of self-categorization. *Self and Identity, 1*(4), 353-376.

Sedikides, C. (1993). Assessment, enhancement, and verification determinants of the self-evaluation process. *Journal of Personality and Social Psychology, 65*(2), 317-338.

Sheldon, K. M., & Bettencourt, B. A. (2002). Psychological need-satisfaction and subjective well-being within groups. *British Journal of Social Psychology, 41*, 25-38.

Simon, B., & Stürmer, S. (2003). Respect for group members: Intragroup determinants of collective identification and group-serving behavior. *Personality and Social Psychology Bulletin, 29*(2), 183-193.

Simon, B., & Stürmer, S. (2005). In search of the active ingredient of respect: A closer look at the role of acceptance. *European Journal of Social Psychology, 35*, 809-818.

Simon, B. & Trötschel R. (in press). Self and social identity. In M. Hewstone, W. Stroebe, & K. Jonas (Eds.). Introduction to Social Psychology (4th ed.), Oxford: Blackwell.

Sleebos, E., Ellemers, N., & de Gilder, D. (2006a). The paradox of the disrespected: Disrespected group members' engagement in group-serving efforts. *Journal of Experimental Social Psychology, 42*, 413-427.

Sleebos, E., Ellemers, N., & de Gilder, D. (2006b). The carrot and the stick: Affective commitment and acceptance anxiety as motives for discretionary group efforts by respected and disrespected group members. *Personality and Social Psychology Bulletin, 32*(2), 244-255.

Smith, H. J., & Tyler, T. R. (1997). Choosing the right pond: The impact of group membership on self-esteem and group-oriented behavior. *Journal of Experimental Social Psychology, 33*, 146-170.

Sniehotta, F. F., Scholz, U., & Schwarzer, R. (2005). Bridging the intention-behaviour gap: Planning, self-efficacy, and action control in the adoption and maintenance of physical exercise. *Psychology and Health,* 20(2), 143-160.

Spears, R., Ellemers, N., & Doosje, B. (2005). Let me count the ways in which I respect thee: Does competence compensate or compromise lack of liking from the group? *European Journal of Social Psychology, 35*, 263-279.

Stasser, G. (1992). Pooling of unshared information during group discussion. In S. Worchel, W. Wood, & J. Simpson (Eds.), *Group process and productivity* (pp. 48-67), Newbury Park, CA: Sage.

Stasser, G., & Titus, W. (2003). Hidden profiles: A brief history. *Psychological Inquiry, 14*(3-4), 304-313.

Staw, B. M. (1984). Organizational behavior: A review and reformulation of the field's outcome variables. *Annual Review of Psychology, 35*, 627-666.

Tajfel, H. (Ed.). (1978). *Differentiation between social groups. Studies in the social psychology of intergroup relations*. London: Academic Press.

Tajfel, H., & Turner, J. (1979). An integrative theory of intergroup conflict. In W. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks/Cole.

Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. Austin (Eds.), *Psychology of intergroup relations* (pp. 7-24). Chicago: Nelson-Hall.

Tesser, A. (1986). Some effects of self-evaluation maintenance on cognition and action. In R. M. Sorrentino & E. T. Higgins (Eds.), *The handbook of motivation and cognition: Foundation of social behavior* (pp. 435-464). New York: Guilford Press.

Thibaut, J., & Kelley, H. H. (1959). *The social psychology of groups*. New York: Wiley.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, UK: Basil Blackwell.

Tyler, T. R. (1994). Psychological models of the justice motive: Antecedents of distributive and procedural justice. *Journal of Personality and Social Psychology, 67*(5), 850-863.

Tyler, T. R., & Blader, S. L. (2001). Identity and cooperative behavior in groups. *Group Processes and Intergroup Relations, 4*(3), 207-226.

Tyler, T. R., & Blader, S. L. (2003). The group engagement model: Procedural justice, social identity, and cooperative behavior. *Personality and Social Psychology Review, 7*(4), 349-361.

Tyler, T., Degoey, P., & Smith, H. (1996). Understanding why the justice of group procedures matters: A test of psychological dynamics of group-value model. *Journal of Personality and Social Psychology, 70*(5), 913-930.

van Knippenberg, D. (2000). Work motivation and performance: A social identity perspective. *Applied Psychology: An International Review, 49*(3), 357-371.

Van Lange, P. A. M, Liebrand, W. B. G., Messick, D. M.,&Wilke, H. A. M. (1992). Introduction and literature review. In W.B.G. Liebrand, D. M. Messick, & H.A.M. Wilke (Eds.), *Social dilemmas: Theoretical issues and research findings* (pp. 3-28). New York: Pergammon.

Wittenbaum, G. M., Hollingshead, A. B., & Botero, I. C. (2004). From cooperative to motivated information sharing in groups: Moving beyond the hidden profile paradigm. *Communication Monographs, 71*(3), 286-310.

Wittenbaum, G. M., & Bowman, J. M. (2004). A social validation explanation for mutual enhancement. *Journal of Experimental Social Psychology, 40,* 169-184.

Wood, J. V. (1989). Theory and research concerning social comparisons of personal attributes. *Psychological Bulletin, 106*(2), 231-248.

Wojciszke, B. (2005). Affective concomitants of information on morality and competence. *European Psychologist, 10*(1), 60-70.

Appendix

7.1 Chapter 3 - ‘You are doing great!’ The effect of respect on group-serving behaviour within groups (Wodzicki, K. & Moser, K. S.)

7.1.1 Appendix A-1: Scenario description

Im Folgenden wird eine konkrete Studiensituation beschrieben. Bitte versetze dich so gut wie möglich in die vorgestellte Situation hinein. Lass dir dafür ruhig ein wenig Zeit und gehe erst dann weiter zur nächsten Seite. Die folgenden Fragen beziehen sich alle auf die beschriebene Situation. Es interessiert uns, wie du die weitere Arbeit an der vorgestellten Aufgabe gestaltest und wie du mit ausgewählten Ereignissen umgehst.

Schreiben einer Seminararbeit

Du hast im Studium die Aufgabe, eine Seminararbeit zu schreiben. Die Grundlage dafür ist eine Literaturrecherche. Du sollst dafür mit zwei weiteren Studierenden eine Arbeitsgruppe bilden, in der ihr euch das Thema gemeinsam erarbeitet. Der Dozent/ die Dozentin erwartet von euch, dass jede/r einen Teil der Seminararbeit alleine schreibt. Zudem soll jede/r ihren/seinen Teil am Ende des Semesters in der Lehrveranstaltung präsentieren. Die Seminararbeit hat ein gemeinsames Thema. Die 3 Teile der Arbeit gründen folglich auf zum Teil gemeinsamer, aber für die Unterthemen auch auf unterschiedlicher Literatur. Der Dozent/ die Dozentin hat 3 Basisartikel vorgegeben, die für euch alle drei von Bedeutung sind. Zusätzlich habt ihr die Aufgabe, weitere Literatur selber zu suchen. Nach Abschluss der Seminararbeit und der Präsentation wird jede/r von euch eine Note für ihren/seinen Teil der Arbeit erhalten. Eine gute bis sehr gute Note (mind. 5) ist die Zulassungsvoraussetzung zu einem Seminar im folgenden Semester, das dich sehr interessiert und an dem du unbedingt teilnehmen willst. Mindestens eine 5 zu bekommen, reicht jedoch nicht in jedem Fall. Das Seminar hat auch eine beschränkte Teilnehmerzahl – nur die Besten kommen hinein. Zudem geht die Note in die Abschlussnote des Faches ein.

7.1.2 Appendix B-1: Manipulation of respect

Manipulation of competence-based respect

> Die erste Zeit der Zusammenarbeit läuft aus deiner Sicht super. Du hast das Gefühl, dass ihr alle drei sehr gut mit dem Stoff zu Recht kommt und ein kompetentes Team seid. Ihr habt die Bearbeitung der Basisartikel untereinander aufgeteilt und du bist mit den Zusammenfassungen der anderen zwei sehr zufrieden. Ihr habt euch dafür entschieden, dass jede/r für seinen/ihren Teil der Arbeit getrennt recherchiert. Bei einem weiterführenden Artikel stösst du durch Verweise des Autors auf einige zentrale Artikel, die auch den anderen Gruppenmitgliedern weiterhelfen sollten. Du besorgst sie in der Bibliothek und kopierst sie auch gleich für die anderen. Beim nächsten Gruppentreffen gibst du sie ihnen.
> Die anderen zwei Gruppenmitglieder sind sehr beeindruckt von deiner guten Idee, auf die Verweise zu achten und so weitere wichtige Literatur zu finden. Sie sind von deiner Kompetenz begeistert und überzeugt, dass es alle inhaltlich weiterbringt.

Manipulation of no competence-based respect

> Die erste Zeit der Zusammenarbeit läuft aus deiner Sicht super. Du hast das Gefühl, dass ihr alle drei sehr gut mit dem Stoff zu Recht kommt und ein kompetentes Team seid. Ihr habt die Bearbeitung der Basisartikel untereinander aufgeteilt und du bist mit den Zusammenfassungen der anderen zwei sehr zufrieden. Ihr habt euch dafür entschieden, dass jede/r für seinen/ihren Teil der Arbeit getrennt recherchiert. Bei einem weiterführenden Artikel stösst du durch Verweise des Autors auf einige zentrale Artikel, die auch den anderen Gruppenmitgliedern weiterhelfen sollten. Du besorgst sie in der Bibliothek und kopierst sie auch gleich für die anderen. Beim nächsten Gruppentreffen gibst du sie ihnen.
> Die anderen zwei Gruppenmitglieder zeigen keine Reaktion. Sie scheinen deinen Einsatz offenbar als selbstverständlich wahrzunehmen.

Manipulation of liking-based respect

Die erste Zeit der Zusammenarbeit läuft aus deiner Sicht super. Du hast das Gefühl, dass ihr euch alle drei sehr gut versteht und ein sympathisches Team seid. Ihr habt die Bearbeitung der Basisartikel untereinander aufgeteilt und du bist mit den angenehmen Absprachen mit den anderen zwei sehr zufrieden. Ihr habt euch dafür entschieden, dass jede/r für seinen/ihren Teil der Arbeit getrennt recherchiert. Bei einem weiterführenden Artikel stösst du durch Verweise des Autors auf einige zentrale Artikel, die auch den anderen Gruppenmitgliedern weiterhelfen sollten. Du besorgst sie in der Bibliothek und kopierst sie auch gleich für die anderen. Beim nächsten Gruppentreffen gibst du sie ihnen.
Die anderen zwei Gruppenmitglieder sind sehr beeindruckt von deiner sehr netten Geste, die Artikel für sie zu besorgen und zu kopieren. Sie finden es sehr zuvorkommend, dass du dir die Zeit genommen hast und wollen unbedingt nach dem Treffen noch was mit dir trinken gehen.

Manipulation of no liking-based respect

Die erste Zeit der Zusammenarbeit läuft aus deiner Sicht super. Du hast das Gefühl, dass ihr euch alle drei sehr gut versteht und ein sympathisches Team seid. Ihr habt die Bearbeitung der Basisartikel untereinander aufgeteilt und du bist mit den angenehmen Absprachen mit den anderen zwei sehr zufrieden. Ihr habt euch dafür entschieden, dass jede/r für seinen/ihren Teil der Arbeit getrennt recherchiert. Bei einem weiterführenden Artikel stösst du durch Verweise des Autors auf einige zentrale Artikel, die auch den anderen Gruppenmitgliedern weiterhelfen sollten. Du besorgst sie in der Bibliothek und kopierst sie auch gleich für die anderen. Beim nächsten Gruppentreffen gibst du sie ihnen.
Die anderen zwei Gruppenmitglieder zeigen keine Reaktion. Sie scheinen deinen Einsatz offenbar als selbstverständlich wahrzunehmen.

7.1.3 Appendix C-1: Dependent measures

Scale 'Attitude towards investment'

	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	stimme eher zu	stimme zu	stimme voll und ganz zu
Ich sehe keinen Grund, warum ich in so einer Situation mit den anderen zwei Gruppenmitgliedern zusammenarbeiten sollte. (reverse coded)	❍	❍	❍	❍	❍	❍
Ich bin mir sicher, dass ich mich mit den anderen zwei Gruppenmitgliedern intensiv austauschen würde.	❍	❍	❍	❍	❍	❍
Ich würde den anderen zwei Gruppenmitgliedern helfen, auch ohne eine unmittelbare Gegenleistung zu erwarten.	❍	❍	❍	❍	❍	❍

Scale 'Intention to extra-effort'

Bei der getrennten Literaturrecherche stösst du auf einen weiteren Artikel, der für alle Gruppenmitglieder interessant sein könnte. Was tust du?

Ich würde den Artikel weitergeben.

stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	stimme eher zu	stimme zu	stimme voll und ganz zu
❍	❍	❍	❍	❍	❍

Bei der getrennten Literaturrecherche bist du auf einen Artikel gestossen, der für ein anderes Gruppenmitglied einen grossen Nutzen bedeuten würde. Der Artikel ist sehr gut geschrieben und trifft das Unterthema genau, würde also eine grosse Arbeitsersparnis für das Mitglied bedeuten. Was tust du?

Ich behalte meine Entdeckung für mich. (reverse coded)

stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	stimme eher zu	stimme zu	stimme voll und ganz zu
❍	❍	❍	❍	❍	❍

Die anderen zwei möchten eine Zwischenbesprechung machen, um allfällige Fragen zu klären. Du selbst kommst auch gut alleine klar. Dir ist klar, dass dir das Treffen nicht viel bringen wird. Hinzukommt, dass dich dein Studium gerade sehr fordert und du mit der Arbeit kaum hinterher kommst. Was tust du?

Ich nehme trotzdem an der Zwischenbesprechung teil.

stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	stimme eher zu	stimme zu	stimme voll und ganz zu
❍	❍	❍	❍	❍	❍

Scale ‚Attitude towards reciprocal cooperation'

	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	stimme eher zu	stimme zu	stimme voll und ganz zu
Wir können gegenseitig von unserem Wissen und unserer Erfahrung profitieren, wenn wir uns austauschen.	❍	❍	❍	❍	❍	❍
Die Zusammenarbeit und der Austausch in der Gruppe werden uns allen nützen, um eine bessere Note zu erzielen.	❍	❍	❍	❍	❍	❍
Die Zusammenarbeit und der Austausch werden letztlich allen zugute kommen.	❍	❍	❍	❍	❍	❍

Perceived respect

	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	stimme eher zu	stimme zu	stimme voll und ganz zu
Wenn ich mich für die anderen Gruppenmitglieder einsetze und sie mit meinem Wissen unterstütze, wird das von ihnen geschätzt.	❍	❍	❍	❍	❍	❍

Identification (scale measure)

	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	stimme eher zu	stimme zu	stimme voll und ganz zu
Ich würde gern weiterhin mit dieser Gruppe zusammen arbeiten.	❍	❍	❍	❍	❍	❍
Ich mag es nicht zu dieser Gruppe zu gehören.	❍	❍	❍	❍	❍	❍
Ich würde lieber zu einer anderen Gruppe gehören.	❍	❍	❍	❍	❍	❍

Importance of collective goals

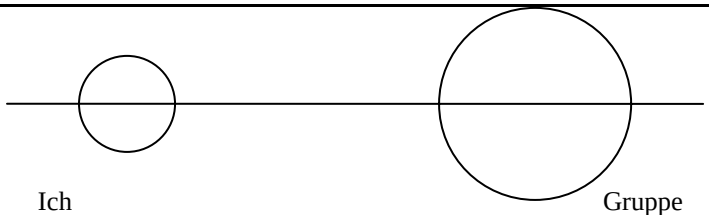
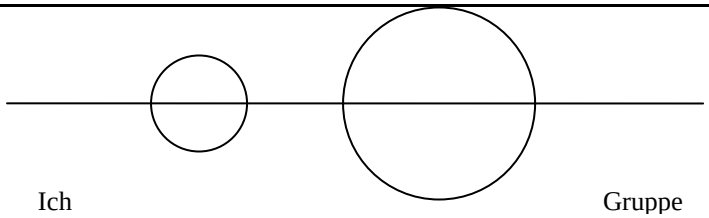
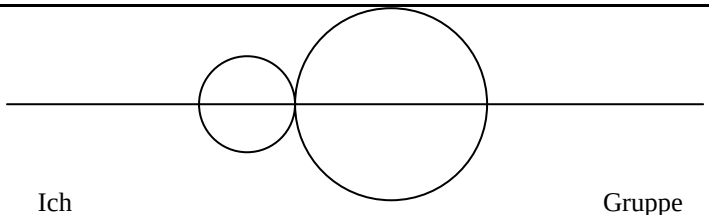
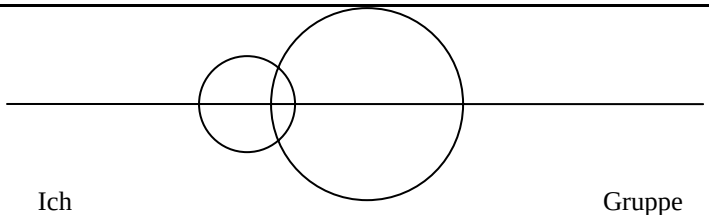
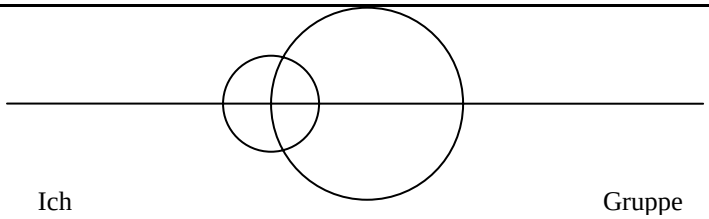
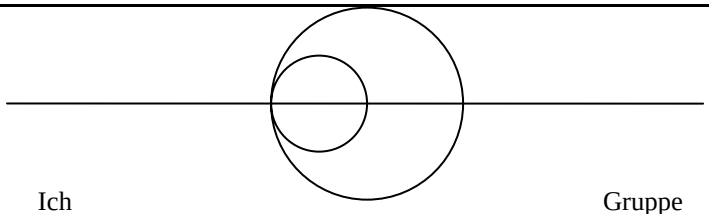
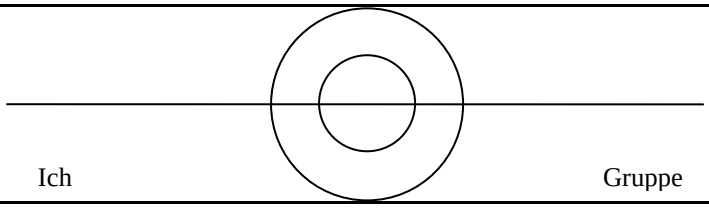
	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	stimme eher zu	stimme zu	stimme voll und ganz zu
Es ist mir sehr wichtig, dass alle Gruppenmitglieder eine sehr gute Note bekommen.	❍	❍	❍	❍	❍	❍
Es ist mir sehr wichtig, dass alle Gruppenmitglieder einen sehr guten Eindruck hinterlassen.	❍	❍	❍	❍	❍	❍
Es ist mir gar nicht wichtig, dass alle Gruppenmitglieder eine sehr gute Leistung erbringen.	❍	❍	❍	❍	❍	❍

Importance of own contributions

	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	stimme eher zu	stimme zu	stimme voll und ganz zu
Ich glaube, dass mein persönlicher Beitrag sehr wichtig für die Leistungen aller Gruppenmitglieder ist.	❍	❍	❍	❍	❍	❍
Meine Fähigkeiten sind sehr wichtig für die Leistungen aller Gruppenmitglieder.	❍	❍	❍	❍	❍	❍
Es würde bezüglich der Leistungen aller Gruppenmitglieder keinen Unterschied machen, wenn ich aufhören würde aktiv mitzuarbeiten.	❍	❍	❍	❍	❍	❍

Identification (graphical measure)

Die Beziehung, die ein Mensch zu einer bestimmten Gruppe hat, lässt sich auch grafisch ausdrücken. Im Folgenden sieht du sieben Grafiken, die einen kleinen und einen grossen Kreis zeigen, und die sich dahingehend unterscheiden, wie nah die Kreise zueinander stehen. Der kleine Kreis steht für das „Ich“ (also für dich selbst), der grosse für die „Gruppe“ (also die beschriebene Arbeitsgruppe). Bitte wähle aus den sieben Grafiken diejenige, die am besten deine Nähe zur beschriebenen Arbeitsgruppe zum Ausdruck bringt.

❍	
❍	
❍	
❍	
❍	
❍	
❍	

7.2 The success of shared databases: Can respect improve information sharing? (Wodzicki, K.)

7.2.1 Appendix D-1: Manipulation of respect in Study 1

Manipulation of competence-based respect

> Dein Vorgesetzter gibt dir nun folgendes Feedback:
> „Die Einarbeitungszeit ist das RegionalTeam ist nun beendet. Du bist sehr gut in der Beratung von Kunden und wirst von deinen Kollegen und Kolleginnen als sehr kompetent wahrgenommen."

Manipulation of liking-based respect

> Dein Vorgesetzter gibt dir nun folgendes Feedback:
> „Die Einarbeitung in das RegionalTeam ist nun beendet. Du wirst als sehr sympathisch wahrgenommen und wirst von allen deinen Kollegen und Kolleginnen sehr gemocht."

Control condition

> Dein Vorgesetzter gibt dir nun folgendes Feedback:
> „Die Einarbeitungszeit in das RegionalTeam ist nun beendet."

Manipulation check items

	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	stimme eher zu	stimme zu	stimme voll und ganz zu
Mein Vorgesetzter und meine Teammitglieder haben mich als sehr kompetent wahrgenommen.	❍	❍	❍	❍	❍	❍
Mein Vorgesetzter und meine Teammitglieder haben mich als sehr sympathisch wahrgenommen.	❍	❍	❍	❍	❍	❍

7.2.2 Appendix E-1: Manipulation of respect in Study 2

Manipulation of competence-based respect

Ende des Probedurchgangs

Im Folgenden erhältst du noch ein paar Informationen über eine Weiterbildungsmassnahme, die vor kurzem für das gesamte RegionalTeam stattgefunden hat. Diese Informationen sollen dir dazu dienen, einen Eindruck von den anderen Mitgliedern im RegionalTeam zu bekommen.

Die Weiterbildungsmassnahme

Alle Teammitglieder des RegionalTeams haben im vergangenen Monat an einer Weiterbildungsmassnahme teilgenommen. Diese fand zwei Tage lang in einem Bildungszentrum in der Region statt. Während der Weiterbildung konntest du feststellen, dass die anderen Teammitglieder sehr kompetente KundenberaterInnen sind.
Ziel der Weiterbildung war es, die Kundenzufriedenheit zu verbessern. Unter anderem wurde eine Gruppendiskussion zum Thema „Verbesserung des Kundenservices“ durchgeführt. Während der Diskussion hattest du dich rege beteiligt und diverse Verbesserungsvorschläge gemacht. Du hattest das Gefühl, deine Erfahrungen und dein Fachwissen sehr gut einbringen zu können.
Bei der Besprechung der Vorschläge wurden deine Beiträge von den anderen Teammitgliedern als innovativ und kompetent bewertet. Alle deine Vorschläge wurden ausgewählt, um sie nach der Weiterbildung umzusetzen.

Manipulation of no competence-based respect

Ende des Probedurchgangs

Im Folgenden erhältst du noch ein paar Informationen über eine Weiterbildungsmassnahme, die vor kurzem für das gesamte RegionalTeam stattgefunden hat. Diese Informationen sollen dir dazu dienen, einen Eindruck von den anderen Mitgliedern im RegionalTeam zu bekommen.

Die Weiterbildungsmassnahme

Alle Teammitglieder des RegionalTeams haben im vergangenen Monat an einer Weiterbildungsmassnahme teilgenommen. Diese fand zwei Tage lang in einem Bildungszentrum in der Region statt. Während der Weiterbildung konntest du feststellen, dass die anderen Teammitglieder sehr kompetente KundenberaterInnen sind.
Ziel der Weiterbildung war es, die Kundenzufriedenheit zu verbessern. Unter anderem wurde eine Gruppendiskussion zum Thema „Verbesserung des Kundenservices“ durchgeführt. Während der Diskussion hattest du dich rege beteiligt und diverse Verbesserungsvorschläge gemacht. Du hattest das Gefühl, deine Erfahrungen und dein Fachwissen sehr gut einbringen zu können.
Bei der Besprechung der Vorschläge wurden deine Beiträge von den anderen Teammitgliedern als einfallslos und wenig kompetent bewertet. Kein einziger deiner Vorschläge wurde ausgewählt, um ihn nach der Weiterbildung umzusetzen.

Manipulation of liking-based respect

Ende des Probedurchgangs

Im Folgenden erhältst du noch ein paar Informationen über eine Weiterbildungsmassnahme, die vor kurzem für das gesamte RegionalTeam stattgefunden hat. Diese Informationen sollen dir dazu dienen, einen Eindruck von den anderen Mitgliedern im RegionalTeam zu bekommen.

Die Weiterbildungsmassnahme

Alle Teammitglieder des RegionalTeams haben im vergangenen Monat an einer Weiterbildungsmassnahme teilgenommen. Diese fand zwei Tage lang in einem Bildungszentrum in der Region statt. Während der Weiterbildung konntest du feststellen, dass du sehr sympathische KollegInnen hast.
Ziel der Weiterbildung war es, die Kundenzufriedenheit zu verbessern. Unter anderem wurde eine Gruppendiskussion zum Thema „Verbesserung des Kundenservices“ durchgeführt. Während der Diskussion hattest du dich rege beteiligt und diverse Verbesserungsvorschläge gemacht. Du hattest dich dabei sehr offen und kooperativ verhalten und hattest das Gefühl, dass du dich von deiner sympathischen Seite zeigen konntest.
Bei der Besprechung des Verhaltens der Teammitglieder während der Diskussion wurde die Art und Weise deiner Beteiligung sehr positiv bewertet. Dein Verhalten wurde von den anderen Teammitgliedern als aufgeschlossen und sympathisch wahrgenommen.

Manipulation of no liking-based respect

Ende des Probedurchgangs

Im Folgenden erhältst du noch ein paar Informationen über eine Weiterbildungsmassnahme, die vor kurzem für das gesamte RegionalTeam stattgefunden hat. Diese Informationen sollen dir dazu dienen, einen Eindruck von den anderen Mitgliedern im RegionalTeam zu bekommen.

Die Weiterbildungsmassnahme

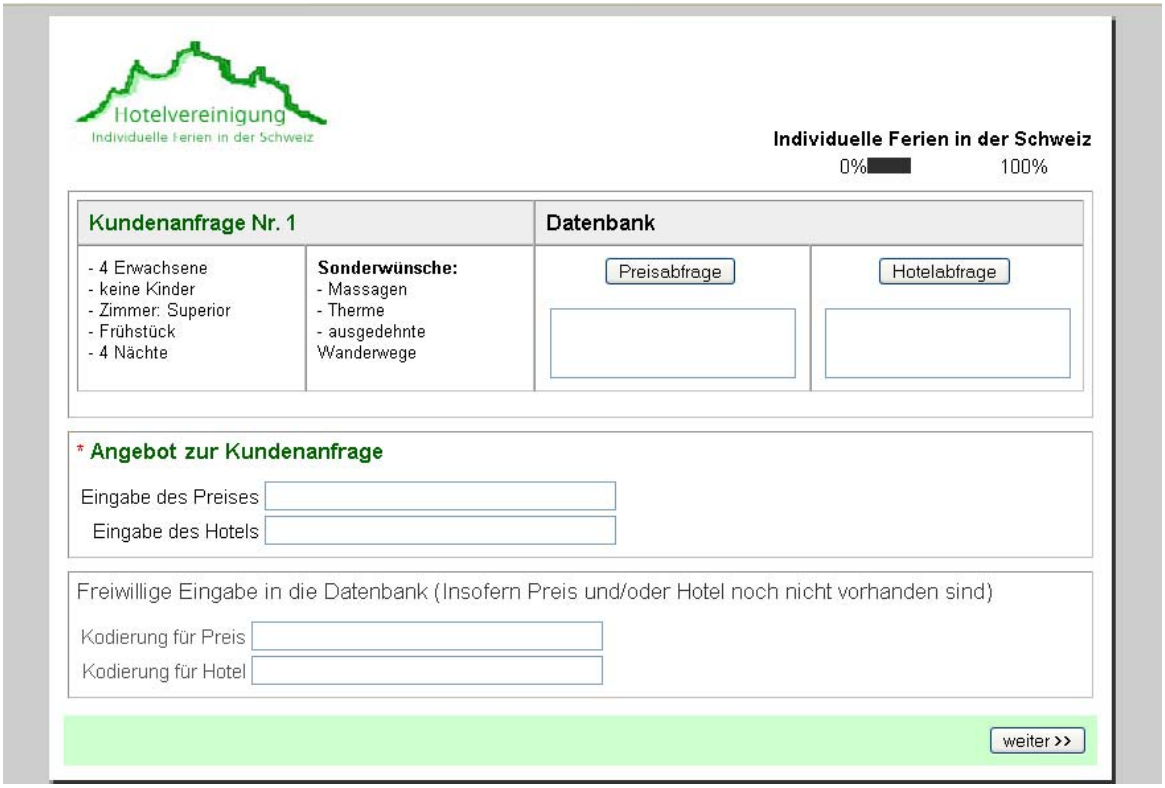
Alle Teammitglieder des RegionalTeams haben im vergangenen Monat an einer Weiterbildungsmassnahme teilgenommen. Diese fand zwei Tage lang in einem Bildungszentrum in der Region statt. Während der Weiterbildung konntest du feststellen, dass du sehr sympathische KollegInnen hast.
Ziel der Weiterbildung war es, die Kundenzufriedenheit zu verbessern. Unter anderem wurde eine Gruppendiskussion zum Thema „Verbesserung des Kundenservices“ durchgeführt. Während der Diskussion hattest du dich rege beteiligt und diverse Verbesserungsvorschläge gemacht. Du hattest dich dabei sehr offen und kooperativ verhalten und hattest das Gefühl, deinen Teamgeist zeigen zu können.
Bei der Besprechung des Verhaltens der Teammitglieder während der Diskussion wurde die Art und Weise deiner Beteiligung eher negativ bewertet. Dein Verhalten wurde von den anderen Teammitgliedern als aufdringlich und wenig sympathisch wahrgenommen.

Manipulation check items

(four items for competence-based respect and four items for liking-based respect)

	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	stimme eher zu	stimme zu	stimme voll und ganz zu
Die anderen Teammitglieder haben meine Beiträge während der Diskussion als innovativ wahrgenommen.	❍	❍	❍	❍	❍	❍
Die anderen Teammitglieder haben meine Beiträge während der Diskussion als einfallslos wahrgenommen.	❍	❍	❍	❍	❍	❍
Die anderen Teammitglieder haben meine Beiträge während der Diskussion als kompetent wahrgenommen.	❍	❍	❍	❍	❍	❍
Die anderen Teammitglieder haben meine Beiträge während der Diskussion als wenig kompetent wahrgenommen.	❍	❍	❍	❍	❍	❍
Die anderen Teammitglieder haben mein Verhalten während der Diskussion als aufgeschlossen wahrgenommen.	❍	❍	❍	❍	❍	❍
Die anderen Teammitglieder haben mein Verhalten während der Diskussion als aufdringlich wahrgenommen.	❍	❍	❍	❍	❍	❍
Die anderen Teammitglieder haben mein Verhalten während der Diskussion als sympathisch wahrgenommen.	❍	❍	❍	❍	❍	❍
Die anderen Teammitglieder haben mein Verhalten während der Diskussion als wenig sympathisch wahrgenommen.	❍	❍	❍	❍	❍	❍

7.2.3 Appendix F-1: Experimental interface



7.2.4 Appendix G-1: Mediators

Identification

	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	stimme eher zu	stimme zu	stimme voll und ganz zu
Ich würde gern weiterhin mit diesem RegionalTeam zusammenarbeiten.	❍	❍	❍	❍	❍	❍
Ich mag es nicht zu diesem RegionalTeam zu gehören.	❍	❍	❍	❍	❍	❍
Ich identifiziere mich mit diesem RegionalTeam.	❍	❍	❍	❍	❍	❍
Ich mag die anderen Teammitglieder.	❍	❍	❍	❍	❍	❍
Ich fühle mich gut damit zu diesem RegionalTeam zu gehören.	❍	❍	❍	❍	❍	❍
Ich würde lieber zu einem anderen RegionalTeam gehören.	❍	❍	❍	❍	❍	❍

Importance of collective goals

	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	stimme eher zu	stimme zu	stimme voll und ganz zu
Es ist mir sehr wichtig, dass alle Teammitglieder ein sehr gutes Ergebnis erzielen.	❍	❍	❍	❍	❍	❍
Es ist mir gar nicht wichtig, dass alle Teammitglieder eine sehr gute Leistung erbringen.	❍	❍	❍	❍	❍	❍
Es ist mir sehr wichtig, dass alle Teammitglieder einen sehr guten Eindruck hinterlassen.	❍	❍	❍	❍	❍	❍

Importance of own contributions

	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	stimme eher zu	stimme zu	stimme voll und ganz zu
Ich glaube, dass mein persönlicher Beitrag sehr wichtig für die Leistungen aller Teammitglieder ist.	❍	❍	❍	❍	❍	❍
Meine Fähigkeiten sind sehr wichtig für die Leistungen aller Teammitglieder.	❍	❍	❍	❍	❍	❍
Es würde bezüglich der Leistungen aller Teammitglieder keinen Unterschied machen, wenn ich aufgehören würde aktiv mitzuarbeiten.	❍	❍	❍	❍	❍	❍

CURRICULUM VITAE

PERSONAL INFORMATION

Katrin Wodzicki

born on 1 June 1979 in Wolfen, Germany

PROFESSIONAL DEVELOPMENT

since 03/2007 **Knowledge Media Research Center, Tübingen**

Research Fellow

05/2005 - 01/2007 **University of Zurich, Switzerland**

Research Fellow and Phd Candidate

- Project „*Individual und situational determinants of reciprocal behavior in knowledge and information sharing in groups* “
- Title of the dissertation: „*To be respected or not to be: How respect causes cooperation and information sharing within groups*”

04/2006 – 02/2007 Tutor for the course "Multivariate Methoden: Regressionsanalyse, konfirmatorische Faktorenanalyse und Pfad- und Strukturgleichungsmodelle"

10/2001 - 12/2004 **University of Jena, Germany**

10/2004 - 12/2004 Research Assistant within the Junior Research Group "*Motivational and cognitive antecedents of social discrimination*" (leader: PD Dr. Kai Sassenberg)

- Design and implementation of experiments

10/2002 - 09/2003
04/2004 - 09/2004 Research Student within the International Graduate College (IGC) “*Conflict and Cooperation between Social Groups*”

- Work on an own research project
- Collaboration with Phd students of the college
- Exchange with visiting scientists and Phd students from Belgium, Great Britain, Italy, Poland and the USA, e.g. during Summer School 2004

10/2001 - 09/2002 Research Assistant at the Professorship of Social Psychology

- Experiment implementation and data evaluation
- Design of computer-based surveys in HTML

10/2003 - 09/2004 **Fraunhofer Institute for Industrial Engineering IAO, Stuttgart, Germany**

06/2004 - 09/2004 Research Assistant within the project ‚e-Qualifikation-tv’

10/2003 - 03/2004 Student Apprentice within the project ‚e-Qualifikation-tv’

- Summative evaluation in the pilot trial
- Acceptance of the professional training solution
- Quality management for the professional training solution

E-Mail katrin.wodzicki@gmx.de

EDUCATION

09/1999 - 04/2005 **University of Jena, Germany**

- Diploma in Psychology, Grade: 1 (excellent)
- Main focus on Work and Organizational Psychology, Pedagogical Psychology and Social Psychology
- Diploma thesis (transl.) *„The Effect of social identification and instrumentality on the engagement in an open-source project“*

10/1998 - 04/1999 **University of Erlangen-Nürnberg, Germany**

- Distance learning preparatory course „FIM Psychologie“

09/1991 - 07/1998 **Walter-Gropius-Gymnasium, Dessau, Germany**

- Abitur Juli 1998, Grade: 1.6

09/1986 - 08/1991 **Polytechnische Oberschule, Dessau, Germany**

PROFESSIONAL TRAINING

01/2006	University of Zurich, PRO-WISS, Course „**Projektmanagement in wissenschaftlichen Projekten**“
04/2004 - 07/2004	University of Jena, IGC **Course on Methodologies** (Leadership: PD Dr. K. Sassenberg & Dr. T. Schubert)
05/2003	Université catholique de Louvain, Belgium, IGC **Writing Workshop** (Leader: PD Dr. T. Mussweiler)

PRESENTATIONS

Wodzicki, K. & Moser, K.S. (2006). „Das hast du echt gut gemacht!“ Soziale Anerkennung und Informationsaustausch. Paper presented at the meeting of the Deutsche Gesellschaft für Psychologie (DGP), Nurnberg, Germany.

Moser, K.S. & Wodzicki, K. (2006). Belohnungsabhängigkeit und Informationsaustausch. Paper presented at the meeting of the Deutsche Gesellschaft für Psychologie (DGP), Nurnberg, Germany.

Wodzicki, K. (2006). Der Einfluss von sozialer Anerkennung auf den Austausch von Informationen. Research Colloquium of the Abteilung 6 Sozial- und Kommunikationspsychologie, University of Göttingen, Germany.

PUBLICATIONS

Moser, K.S., & Wodzicki, K. (2007). The effect of reward interdependence on cooperation and information sharing. Swiss Journal of Psychology, 66(2), 117-127.

Wodzicki, K., & Moser, K.S. (in preparation). ‘You are doing great!’ The effect of respect on group-serving behaviour within groups.

Sassenberg, K., Wodzicki, K. & Jörke, S. (2006). The impact of interpersonal and ingroup influence on knowledge exchange. Unpublished Manuscript.

LANGUAGES

German	native
English	proficient in understanding, speaking, and writing
French	basic in understanding

COMPUTER SKILLS

Word (proficient), **PowerPoint** (proficient), **Excel** (basic), **Photoshop** (basic), **SPSS** (proficient), **AMOS** (proficient), **HTML** (basic)

INTERESTS AND ACTIVITIES

Reading fictions, Photography, Cycling and Swimming

November 2007

E-Mail katrin.wodzicki@gmx.de